

The Newest
Young Man's Companion,

CONTAINING,

A Compendious English Grammar.

INSTRUCTIONS to write Variety of Hands,
with COPIES both in Prose and Verse.

LETTERS *ON* COMPLIMENT, BUSINESS,
and several other Occasions. FORMS of Inden-
tures, Bonds, Wills, Testaments, Letters of Attorney,
Bills of Sale, Receipts, Releases, &c.

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in an Easier Way than any yet published; With
The ART of MENSURATION.

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LIKEWISE

A Compendium of GEOGRAPHY,
Describing all the Empires, Kingdoms and Dominions, in
the whole World. To which is added a Description
of the several Counties of *England* and *Scotland*, their
Produce, Market-Towns, and Market-Days.

The ART of PAINTING in Oil, colouring Maps, &c. with
Water Colours, and Directions for Gilding with Gold
or Silver; The Art of Making *Artificial Fireworks*;
Tables shewing Accompts ready cast up:

AND

An English Spelling Dictionary.

*The whole calculated to qualify Persons for Business, without
a Master, and illustrated with a Map of the World.*

By THOMAS WISE, Accountant.

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JUST PUBLISHED,

**A Treatise of Arithmetick by the same
Author, Price one Shilling.**



A

COMPENDIOUS ENGLISH GRAMMAR.

GRAMMAR, in any language, is that art or science that teacheth the true and proper use of *letters, syllables, words and sentences*. And tho' several rules and observations, applicable only to one particular speech or tongue, are different from those of another, yet such as concern the general relation, that things have to their modes, qualities, motions or passions, are exactly the same in all the languages in the world; for any *name, quality &c.* in the *English* language, is the same in any other, tho' expressed in a different term. From whence may be perceived, how far the generality of people are mistaken, in the notion they have, that it is absolutely necessary for all young persons to read the *Latin*, or *Lilly's* grammar, before they can attain to a right understanding of the *English*: for all the grammars of the *Latin* tongue are mostly employed to teach the various terminations, &c. of the flexions, modes, formations, and words of that language, a matter which no way concerns the *English*. But there are some few general rules in that and all other Grammars that may be applied to the *English*, or any other language whatever.

I shall not here enter into a critical dissertation upon each letter, nor divide them into vowels, consonants, mutes, liquids, &c. nor shall I divide the language into eight parts, as is generally done, but into four, *viz.*

A

NAMES.

2 A Compendious English Grammar.

NAMES.	AFFIRMATIONS.
QUALITIES.	PARTICLES, or the <i>manner of words</i> .

Names express the *things themselves*, i. e. every thing that is the object of our several senses, reflexion, and understanding; which conveying some certain *idea* or *image* to the mind, want not the help of any other word to make them understood: As when we hear any one say, *a man, a horse, virtue, vice, &c.* we perfectly understand what he means.

Names express the things themselves, you cannot therefore put the word *thing* after them thus, *man thing, virtue thing, &c.* without making nonsense.

They admit of *a* or *the* before them, and *an* when they begin with a vowel.

There are two sorts of *Names*, *Common Names* are such as agree to, or express the whole species; as the name *horse* signifies *my horse, your horse*, and all the *horses* that are.

Proper Names distinguish particulars of the species from each other; as *Cæsar, Pompey, Cato*, distinguish those men from the rest of mankind. The same holds of the *proper names* of *cities, towns, mountains, rivers, countries, &c.*

Qualities are the manners of *names*, or things expressed by them, as *good, bad, round, square, &c.* For example: the being of *wax*, is the substance of *wax*, or *wax* itself, without regard to any form or colour, and is what we call the name; the roundness, squareness, &c. of the figure are the manners of the being; as to be ignorant or knowing, are the manners or qualities of our being: thus we say a *good, bad, black, white, &c.* horse; *horse* is the name, and *good, bad, black, white, &c.* are the qualities of that name.

The 3d general head is the *affirmation*, under which term the existence, action, or passion of the subject is affirmed, as, *the black horse runs, the common-sewer stinks, the young child cries.* Here *black, common, and young* are qualities, as expressing some mode or quality of their subjects or names, *horse, sewer and child*; and the words *runs, stinks, and cries* denoting the several actions of their subjects or names. It is usual to call these
by

by three different appellations, viz. *substantive*, *active*, and *passive*; those that are found to signify the being or existence of any thing, as *I am*, &c. are termed *substantives*; those that signify the acting or doing or any thing, as *I see*, &c. are called *actives*; where passion or the suffering of any thing is signified, as *I am vexed*, &c. they are *passives*.

The 4th class of words I call by the general name of *articles*, which are occasionally made use of to make the sense of the speaker more full, clear, and intelligible, by expressing the manner, or other circumstances of the other words, either by connecting them together, or shewing the manners or qualities of them; viz. *John and Mary strive earnestly*; here *and*, *earnestly*, are particles; *and*, joining the two names *John*, *Mary*; *earnestly*, shewing the mode of their striving.

A substantive has what is called two *numbers*, the one expressing only some one single thing of a sort or species, as *a Man*, the other all above one, as *Men*, viz. two, three, twenty, a thousand &c. and this is called the plural number. The *singular number* is commonly distinguished by *a*, *an*, or *one*; as *a horse*, *a man*, *an image*, *a ideot*, *one child*, *one wife*, &c. The *plural number* is generally known by the words terminating with an *s*, *es*; but the *singular* never, but in such words as have *plural Termination*, tho' they have a *singular* meaning; as, *arm*, *arms*: *horse*, *horses*: *king*, *kings*: *stone*, *stones*, &c.

There are some exceptions to this general rule, but they are few in comparison to those that it comprehends: such as *ox*, *oxen*: *man*, *men*: *brother*, *brethren*: *cow*, *cows*: *vine*, *vines*: *mouse*, *mice*: *foot*, *feet*: *tooth*, *teeth*: *penny*, *pence*: &c. Singulars which end in *f* or *fe*, have their plurals ending in *ves*; as *wife*, *wives*: *self*, *selves*: *knife*, *knives*: *wolf* *wolves*: &c. And tho' most words, whose singulars end in *ff*, follow the general rule aforegoing, *muff*, *muffs*, &c. yet *staff* makes *staves* according to the latter rule.

Some terminate alike in both numbers, as *one sheep*, *ten sheep*: *one swine*, *ten swine*: &c.

There are some words that admit of no singular number, such as *ashes*, *bowels*, *oreffes*, &c. And on the con-

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There are some words that admit of no singular number, such as *ashes*, *bowels*, *crosses*, &c. And on the con-

trary there are a great many that want the plural number; such as proper names of men, women, places, creatures and things, as also their virtues, vices, habits and abstract qualities, the generality of grains, spices, herbs, drugs and liquids, as *wheat, rye, pepper, ginger, grass, Air, blood, milk, &c.*

To the *English* language there belong *three genders*, which in conformity to the custom used in the *Greek* and *Latin* tongues, may be called *masculine, feminine* and *neuter*; the *masculine* comprehending all males, the *feminine* all females and the *neuter* all things without life; and these are thus distinguished by these terms, *he, his* or *him*, for the *masculine*; *she, her, hers,* &c. for the *feminine*; and *it* for the *neuter*, but the quality remains the same, and is as applicable to males as females or things without life called neuters, as *a good boy, a good girl, a good knife, &c.*

Some feminines are formed by changing the termination of the masculine into *ess*, as *count, countess; duke, dutchess; heir, heiress; lion, lioness; &c.*

The *English* language has *three persons*, viz. I, the first; *thou*, the second; *he, she, it*, the third, in the singular number; and *we; ye, you; they, those*, in the plural; to which may be added *who, whom* or *what*. These distinctions are absolutely necessary, as appears from the nature of speech, which is always employed about the person or persons, then immediately speaking, denoted by the characteristic I or *we*; the person or thing spoken to, by *thou, ye, or you*; or the person or thing spoken of, by *he, she, it, they, &c.* This is to be understood when they stand before an *affirmation*, as I *write, thou writest, he writeth, &c.* but in compound sentences, and after affirmations they are changed into *me, thee, him, &c.* as I *can prove this horse belongs to me, thee, &c.*

All qualities in *English* are the same in both numbers, as, *a good man, ten good men, &c.* and unless some *name* be joined with it, to determine what quality it is to be understood of, it can never make the sense complete; as, *good, bad, &c.* have no meaning till applied; as, *a good boy, a bad horse, &c.*

When two *names* are compounded into one word,
the

the first becomes a quality as, *sea-fish, gold-cup, &c.*

My, thy, her, our, your, their, are called *personal possessives*, and are only used when they are join'd with names as, *this is my horse, my coat, my book, &c.* but when the sense is not expressed immediately, but understood, or a question is asked, they are changed into *mine, thine, hers, yours, theirs*; as, *this knife is mine*; that is, *this is my knife*; *whose knife is this? mine*, or *it is my knife, &c.*

To *qualities* belongs also increase or diminution of the value, goodness or virtue of the Names to which they are joined; and these are generally formed by adding *er*, and *est* to the plain simple word itself; as, *fair, fairer, fairest*; tho' sometimes they are made by adding *more* or *most* to the simple word, as, *fairer, or more fair, fairest, or most fair*: reading and observation will quickly teach any person where to introduce these in the most advantageous place. These four following are irregulars; *good, better, best; bad or ill, worse, worst; little, less, least; much, more, most.*

Instead of the various terminations and declensions of the other languages, the *English* use *a* or *the, of, to, by, from* or *with, &c.* to distinguish the several circumstances of the *Name* both when it is alone, and also when it is joined with the *quality* in both numbers; as,

Singular number.

Plural number.

A or *the* man.

The men.

Of a or *the* man.

Of the men.

To a or *the* man.

To the men.

By, from, or with a or *the* man.

By, from or with the men.

Singular.

Plural.

A or *the* good horse.

The good horses.

Of a or *the* good horse, &c.

Of the good horses, &c.

We have already taken notice that the third class of words, is the affirmation and what its office is; we shall only here observe, that it has *two numbers, time, and person* belonging to it, by which the being, action, or passion of the subject or Name is declared or affirmed; for the expressing the true state of the time, there is what are

usually called *auxiliaries* from or by which the times of other affirmations are expressed, there being only the *present* and the *passing time* naturally arising from the different endings of the words themselves; that is, the *present* and the *passing*, or *past time*; as *love* the present, and *lov'd* or *loved* the passing time. The present time, or the instant in which any thing is actually performing, &c. is distinguished by the words *do*, *dost*, or *doth*, for the singular number; and *do* only for the plural, with the proper personal signs, *I*, *thou*, *he*, *we*, *ye*, *they*, &c. The passing time is an imperfect manner of expressing, and intimates so much, having the sign *did*, or the termination *ed*: the past time shews the action complete; by affirming something with the sign *have*; there is also what is called the *preterpluperfect tense*, and has the sign *had* affixed to it; the other is the *future tense* that affirms something *shall* or *will* be hereafter. And tho' there are really but three proper distinctions of time, *viz.* the *present*, the *past*, and the *future*; yet as our language, as well as others, have various terminations, or manners of expression, we shall insert them; as to the distinctions of what is commonly called *moods*, it is undeniably certain that they may be denominated as variously and be as numerous as the particular circumstances require.

As what is called the *potential* and *subjunctive moods*, are an undeniable proof of differing only by some accidental signs; for which reason they are not here enumerated, but called the 1st, 2^d, 3^d, and 4th mood. The first declaring or making some positive assertion about, or relating to the subject, or name. The second having only one tense and five persons, and is employed wholly about commanding or ordaining, praying or permitting something to be done, without any specification of time. The third may be variously circumstanced, according as it has its expletives adjoined. And the fourth expresses the action barely and indefinitely as to time. The two auxiliaries supply all others, with those tenses or times which they naturally have no proper termination or distinction for, *viz.* *to have*, by whose assistance all actives are formed, or such as import doing something; and *to be*, from which all passives

lives are formed, that is, such as import suffering or bearing something done to the subject.

The first or indicative mood.

<i>Present tense.</i>		<i>Present tense.</i>	
<i>Singular.</i>		<i>Plural.</i>	
<i>I</i> _____	<i>have</i>	<i>We</i> _____	<i>have</i>
<i>Thou</i> _____	<i>hast</i>	<i>Ye</i> _____	<i>have</i>
<i>He</i> _____	<i>hath</i>	<i>They</i> _____	<i>have</i>

<i>Past tense.</i>		<i>Past tense.</i>	
<i>Singular.</i>		<i>Plural.</i>	
<i>I</i> _____	<i>had</i>	<i>We</i> _____	<i>had</i>
<i>Thou</i> _____	<i>hadst</i>	<i>Ye</i> _____	<i>had</i>
<i>He</i> _____	<i>had</i>	<i>They</i> _____	<i>had</i>

<i>Future tense.</i>		<i>Future tense.</i>	
<i>Singular.</i>		<i>Plural.</i>	
<i>I</i> shall or will	<i>have</i>	<i>We</i> }	<i>shall or will have.</i>
<i>Thou</i> shalt or wilt	<i>have</i>	<i>Ye</i> }	
<i>He</i> shall or will	<i>have</i>	<i>They</i> }	

Some make other distinctions of time, but as they are only a coupling of these together, this short essay will not permit the disquisition; such as, *I have had, I had had, &c.*

The second or imperative mood.

Have thou. Let him, her, it have. Let us have. Have ye. Let them have.

The third, or subjunctive, potential, &c. mood

Is always distinguished by adding some sign of wishing, power, &c. as *I may or can have; I might, could, should, or ought to have, &c.*

The fourth or infinitive mood

Is always distinguished by the sign *to*; as, *to have, to love, &c.* from this mood that quality call'd a *participle*, is formed, importing possession; as, *having, being, loving, &c.*

The first or indicative mood.

<i>Present tense.</i>	<i>Present tense.</i>	<i>Past tense.</i>	<i>Past tense.</i>
<i>Singular.</i>	<i>Plural.</i>	<i>Singular.</i>	<i>Plural.</i>
<i>I am</i>	<i>We are</i>	<i>I was</i>	<i>We were</i>
<i>Thou art</i>	<i>Ye are</i>	<i>Thou wast</i>	<i>Ye were</i>
<i>He, she, it is</i>	<i>They are</i>	<i>He was</i>	<i>They were</i>
			<i>Future</i>

Future tense.	
Singular.	Plural.
<i>I shall or will be</i>	<i>We</i> }
<i>Thou shalt or wilt be</i>	<i>Ye</i> } <i>shall or will be</i>
<i>He shall or will be</i>	<i>They</i> }

There are other expressions, called tenses, compounded of *have*, and this verb; as, *I have been*, &c. *I had been*, &c.

The second or imperative mood.

Be thou. Let him, her, it be. Let us be. Be ye. Let them be.

The third or subjunctive, &c. Mood.

That I may, can, might, would, could, should, or ought to be, &c.

The fourth or infinitive mood.

To be, to have been. Being.

From these all other affirmations regular and irregular, are formed and completed, to express every possible circumstance of time, action, or passion: as for example.

1st MOOD.

I love, I loved, I have loved, I had loved, I shall or will love.

We We We We We

Thou lovest or dost love } Thou lovedst or didst love

Ye love or do love } Ye loved or did love

Thou hast loved } Thou badst loved

Ye have loved } Ye had loved

Thou shalt or wilt love.

They shall or will love.

2d MOOD.

Love thou; love he, she, or it, or let him, her, or it love; love we, or let us love; love ye; love they, or let them love.

3d MOOD.

I, thou, he, she, &c. may, can, might, could, &c. love.

4th MOOD.

To love, loving, &c.

From what has been said, it is observable, that the natural Formations are made successively, thus: first, something is affirmed by the first person singular; as *I love,*

love, then I loved, or did love, then I have, or had loved; and afterwards shall or will love. But there are some verbs that are irregular, and instead of ending in *ed*, in the 2^d and 3^d tenses, have particular endings of their own; as, I bear, bore, have born; I beat, have beaten; I begin, have begun; I behold, have beheld; I bend, have bent; I beseech, have besought; I bid, bade, have bid, or bidden; I bind, have bound; I bite, have bitten; I blow, blew, have blown; I bleed, have bled; I breed, have bred; I bring, have brought; I break, broke, have broken; I am born, was born, have been born; I buy, have bought; I catch, have caught; I chide, chid, have chidden; I choose, chose, have chosen; I come, came, am come; I cleave, clove, have cloven; I cut, have cut; I creep, crept, or crept, have crept; I crow, crew; I dare, durst; I deal, dealt; I do, did, have done; I draw, drew, have drawn; I dream, dreamt; I drink, drank, have drunk; I drive, drove, have driven; I do eat, did eat, have eaten; I fall, fell, am fallen; I feed, fed; I feel, felt; I do fetch, did fetch; I fight, have fought; I find, found; I fling, flung; I fly, flew, am flown; I fly, fled, am fled; I forget, forgot, have forgotten; I get, got; I give, gave, have given; I go, went, am gone; I grind, ground; I grow, grew, am grown; I hang, hung, have hanged; I hear, heard; I hide, hid, have hidden; I hold, held; I keep, kept; I know, knew, have known; I lead, led; I learn, learnt; I leave, left; I lend, lent; I do let, did let, have let; I lie, have lain; I lye, lyed; I lose, lost; I make, made; I mean, meant; I meet, met; I mist, mist or missed; I owe, have owed; I do, did, have put; I do, did, have read; I ride, rid, have ridden; I ring, rung; I rise, rose, am risen; I do, did, have run; I say, said; I see, saw, have seen; I seek, sought; I sell, sold; I send, sent; I do, did, have shed; I shine, shone; I shoe, shod; I shoot, shot; I shrink, shrunk; I sing, sang or sung; I sit, sat or sate; I slay, slew, have slain; I sleep, slept; I slide, slid; I sling, slung; I smell, smelt; I smite, smote, have smitten; I speak, spake, have spoken; I spend, spent; I spill, spilled or spilt; I spin, spun; I spit, have spit or spitten; I do, did, or have spread, I spring, or sprung; I spit, or spat; I sow, sowed, have sown; I stand, stood; I sting, stung; I strike, struck, have stricken; I string, strung; I swear, swore

swore, have sworn; I do or did sweat, have sweated; I sweep, swept; I swim, swam, have swum; I take, took, have taken; I teach, taught; I tear, tore, have torn; I tell, told; I think, thought; I thrive, throve, have thriven; I throw, threw, have thrown; I tread, trod, have trodden; I understand, understood; I weave, wove, have weaved; I weep, wept; I win, won; I am, was, have been willing; I work, wrought; I wring, wrung; I write, wrote, have written.

The fourth part is universally here called *particles*, under which denomination, all those small words that tie or unite the others together, or that express the modes or manners of words are signified, and which usually, by the common grammarians, are called *adverbs, conjunctions, prepositions, and interjections*. From the due use and connexion of these four parts, are formed sentences; and from a number or multitude of sentences, arise regular discourses, speeches, &c. A sentence consists of three words at least, by which some Idea of the mind is expressed; as *lying is hateful*. And this is called a simple sentence, wherein the name or thing is expressed but once, and something is affirm'd of that subject; first, its being, and next its mode of being, or else some action of the subject passes upon another, or at least is understood so to do. All others are compound, wherein either the same subject or name is repeated, or different ones affirmed something of, &c. The name ordinarily is placed before the affirmation and is always really expressed or understood so to be; as, *John loves Mary*. And here it must always be observed, that the same number and person, that the name whose action or passion is intended or expressed by the affirmation is, the same must the affirmation itself be; as in the example above, the name *John*, is the third person singular, and so is the affirmation *loves*. And in the following sentence, *men love your wives*; the name *men* is the second person plural, so is the affirmation. *We admire learning*; here *we* is the first person plural, and *admire*, is so also; which is to be observed of all others.

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This image shows a blank, aged, cream-colored page, likely an endpaper or flyleaf of a book. The paper has a slightly textured appearance with some minor creases and discoloration, characteristic of old paper. The right edge of the page shows the binding of the book, with the adjacent page visible. There is no text or other markings on the page.

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The first of these is the
 fact that the system of
 the world is not a
 system of the world.

Round Hand

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMNOP
 NOPQRSTUVWXYZ

He that loveth pleasure shall
 be a poor man, he that loveth
 wine and oyl shall not be rich.

German Text

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMNOP
 QRSSTUVWXYZ

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLM
 NOPQRSTUVWXYZ

Speak not in the ears of
 a fool for he will despise

Italian Hand

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMNOP
 NOPQRSTUVWXYZ

Riches are not for ever & doth the
 crown endure to every generation.

Engrossing

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMNOP
 QRSSTUVWXYZ

abcdefghijklmnopqrstuvwxyz
 ABCDEFGHIJKLMN
 OPQRSTUVWXYZ

Running Hand

Fret not thy self because of evil men,
 neither be thou envious.
 Forsake the foolish and live and go in
 the way of understanding



DIRECTIONS

FOR

WRITING.

I SHALL endeavour to make this performance useful to those who desire to *write* well for common business; as also to such teachers who want to be instructed in the *first principles* of the art of *writing*. And therefore, I shall not trouble you with a long, unnecessary account of the *dependence* of all the *letters* in the several alphabets upon one another, that being easily discover'd (so far as is material) by any one who knows but the fundamental letters of each hand, which I shall only mention, and leave the rest to your own observation.

The several sorts of *hands* now in use among us, may be divided into two *branches*, viz. those of absolute use for *business*, and those which are only *ornamental*. Those of absolute use may be reckoned six, the *round-hand* and *Italian*, in which most of the common affairs of *trade*, and the ordinary business of *life*, are written by all *Europeans*; the *engrossing*, *square-text*, *court*, and *chancery* hands, in which all the various business of the law is generally transacted, and recorded. The other *hands*, viz. the *old English*, the *Roman* and *Italian* prints, the *German text*, &c. are only made use of by way of ornament, or for curiosity in some particular cases and therefore the writing of them is not esteemed of such necessity to those who are intended for common business.

The principal things to be aim'd at in order to write any *hand* well, are these two: *first*, To get an exact *no-*
tion

tion, or *idea* of a good *letter*, which may be done by a frequent and nice observation of a correct copy: the other is, To get such a command of hand, as to be able to express, with the pen, that *idea* upon the paper, which is attain'd by constant and careful practice after good examples; the learner being first inform'd of the most necessary things to be observ'd in his practice of that *hand* he intends to be master of. I shall therefore,

I. Mention some *things* to be generally observ'd in *writing*.

II. Give some directions for holding the pen.

III. Shew the nature of the pen, with particular *rules* and *proportions* for the writing of each hand.

And, IV. Lay down some proper *directions* for young persons, when they first enter upon business, in order to bring them to write a good *hand* with *expedition*, and to make them place *figures* after the most beautiful and practical manner.

I. The *essential properties* of a good piece of *writing*, are, a due *proportion* of the *characters* throughout the whole; a just distance between the *letters* themselves, as well as the *words*, with a natural leaning or inclination of the *letters* one to another; a clean, smooth stroke, perform'd with a masterly *boldness* and *freedom*, without which, the most regular piece is like a dead *corps*, whose *features*, tho' they may be exact in symmetry, yet want that *spirit* which only can render it an *object* both valuable and delightful.

The proportion of the several *letters* in most *hands*, are generally regulated by the *o* and *n*, therefore let the making of them be first carefully practis'd, and then the other *letters* which come from them, all which must be of the same width and fulness of stroke as they are of.

The proportion and shape of the *letters* in any hand, ought to be the same, whether they are written in a large, or small size; therefore, let every hand be first learn'd in a large *character*, which will not only sooner fix the *idea* of a good *letter* in your mind, but also give you a greater freedom, and in a shorter time, than writing of the small will. It is certain, that the lesser is always contain'd

tain'd in the greater; and he that attains to write any *hand* large, may soon write it as small as he pleases.

Let all *strokes*, which are the constituent parts of a *letter*, (or, as some call them) the body-strokes, be made with the full pen, and of the same thickness one with another, as near as is consistent with the nature of the *hand* you are writing.

Let all the *strokes* which join the constituent parts of *letters*, or the *letters* themselves together, be made with the corner of the pen, and as fine as the *hand* will admit of; which *strokes* must always have some proportion to the *body-stroke*, and must be thicker, or finer, according as the character is, lesser, or greater: turn not your *pen*, neither alter the position of your *hand*, but let it move with a steady, easy motion, and perform every letter without catchings, and convulsive flutterings.

Let the fine *strokes* answer one another, in a kind of opposition, and in many *hands* run nearly parallel.

Let all the *letters* which have not *stems* above or below the line, be even at top and bottom. Let those which have *stems* above the other letters, be equal in length to *l*, except *t*, and a few other letters in some *hands*. Let those which have *stems* below the line, be equal in length to the *j*, some few excepted, which may be seen by the alphabets of the several *hands* in the *examples*.

Let the capital letters be equal in height to the little *l*, and a small matter stronger.

Let the distance between words be double to that between letters.

Let the lines be of such a Distance, that the *stems* of the letters may not interfere one with another; to prevent which they must be at least twice the length of an *l* asunder.

II. The next thing is, *directions* for holding the pen, and sitting to write.

Hold your pen between the two *fore-fingers*, extended almost straight, and the *thumb* bending a little outward, and in your *right-hand*, with the hollow side of the pen downwards, and the *nib* flat upon the *paper*: let it rest between the two upper joints of the *fore-finger*, and upon the End of the middle one, about an inch

from the *nib* of the pen, the ends of the little finger, and that which is next to it, bend in towards the palm of the hand, about half an inch distant from the end of the middle finger.

Let the book or paper lie directly before you, and your hand rest only on the top of your little finger; let no other part of your hand or wrist touch the paper or desk; rest your arm-very lightly between the wrist and elbow. Keep your body upright, and from touching the desk; let your elbow be almost close to your side, and the pen pointed towards the outer part of your right shoulder; so that a line being drawn from the inner part of the arm, at the bend of the elbow to the *nib* of the pen, will be nearly at right angles with the line you are writing upon. And for the *slope* hands, turn your left side a little towards the desk; but for the upright ones, let the body be directly before it, and the right elbow turned outwards from your side; so that a *right line* being drawn from the *inner bend* of the elbow to the *nib* of the pen, will make an *angle*, near 45 degrees with the *line* you are writing upon. Let the weight of your body rest upon your *left-arm*, and the *paper* be kept down with your *left-hand*.

Take care of *pressing hard* upon your pen in writing any hand.

III. As to the nature of the pen, and the *particular rules* and *proportions* for writing each hand, though they might be swelled up to a very great number, by *enlarging* upon every *critical nicety*, yet I shall deliver only such, as, in my judgment, are most *necessary*, most *beautiful*, and most *applicable* to *expeditious practice*.

Make the *nib* of your pen for the round and round text hands, the breadth of the full stroke, and that part lying next the hand, somewhat shorter and narrower.

For the *Italian* hand make the *nib* somewhat finer, and the slit longer.

Note, In writing, where figures are intermixed, they must always *slope*.

Your *Figures* likewise must be larger than your writing.

When your figures are ranged in columns, make them upright.

How

How to make a PEN.

TAKE the first, second, or third quills in the wing of a goose or raven (those that are round, clip and clean, are the best;) when you have scrap'd off the thin rind thereof, with the back-edge of your pen-knife, hold it in your left hand with the feather end from you, then enter the back thereof sloping, and cut off as much in length, as the quill is in breadth, and answer that with another cut on the inside, like an opposite to the former; then turn the quill, and enter the edge of your pen-knife even in the back thereof, and exactly in the midst of the half round, neither inclining the blade one way nor other, that the slit may not be made awry. Then put in the peg of your knife-haft, if it has one for that purpose, or the end of a whole quill, and with a sudden twitch, force up the slit, holding your left-hand thumb hard upon the back of the quill, to put a stop how far the slit shall go. This being done, enter your knife sloping in the other side above the slit, about twice the breadth of the quill, and cut away the cradle-piece; then turn the back upwards, and cut down to the end of the slit, the cheek or shoulder-pieces, and in so doing, turn the knife on both sides towards the back. After this, place the inside of the end or nib of the pen, upon the nail of your left-hand thumb, holding the quill fast between the fore-finger and middle finger of that hand. *Lastly*, To finish the nib, enter the edge of the knife on the back, and near the end thereof sloping, and immediately turning the edge almost downright, cut it off.

There are four considerations belonging to the quill.

1. If the quill be too hard, steep it a while in water.
2. If it is too soft, harden it with embers.
3. If it be too thick, pare a small quantity from the back of the nib.
4. If it be too thin and weak, strengthen the pen with a short slit, a short nib, and broad shoulder.

A receipt for the best BLACK INK.

TO six quarts of rain or river water, (but rain water is the best) put one pound and a half of fresh blue-galls of *Aleppo*, (for those of *Smyrna* are not strong enough) bruised pretty small; eight ounces of copperas, clean, rocky and green; also eight ounces of clean, bright and clear gum arabick; and two ounces of rock allum: let these stand together in a large stone bottle, or clean stone pot, or earthen pot, with a narrow mouth to keep it free from dust; shake, rowl, or stir it well, once every day, and you will have an excellent ink in about a month's time, and the older it grows, the better it will be for use.

Ingredients for a quart.

One quart of water, four ounces of galls, two ounces of copperas, and two ounces of gum, mix'd and stirred as above.

To make LONDON INK-POWDER.

TAKE ten ounces of the clearest nut-galls, bruise them, and sift the powder very fine, then add white copperas two ounces, Roman vitriol three ounces, gum arabick, or sandarack an ounce, bruise and sift them very fine, so that though they appear white, a little being put into water, will in a little time turn it, and an ounce of powder will make a pint of very black ink.

To make JAPAN or SHINING INK.

TAKE gum arabick and Roman vitriol, of each an ounce, galls well bruised a pound, put them into rape vinegar, or vinegar made of clear small-beer; let them remain in a warm place, often stirring, till the liquor becomes black, then add to a gallon, an ounce of ivory black, and a quarter of a pint of seed lac-varnish, and it will be a curious black shining ink.

A POWDER-INK to rub on paper, and write on.

BRUISE about twenty nut-galls, and half an ounce of Roman vitriol, as much gum arabick and gum sandarack, mingle these finely together, when well bruised and sifted to a powder; rub the paper hard with it with cotton wool, and polishing it with a piece of ivory, write with water, and in a little time the letters you write will appear a fair black, as if written with the best ink.

How to make RED INK.

TAKE three pints of stale beer, (rather than vinegar) and four ounces of ground brazil wood; simmer them together for an hour; then put in four ounces of roch allum; and these three are to simmer together for half an hour; and then strain it thro' a Flannel, or, &c. then bottle it up, well stopp'd, for Use.

To keep INK from Freezing or Moulding.

IN hard frosty Weather, Ink will be apt to freeze; which, if once it doth, it will be good for nothing; for it takes away all its blackness and beauty: to prevent which, (if you have not the conveniency of keeping it warm, or from the cold) put a few drops of brandy, or other spirits, into it, and it will not freeze. And to hinder its moulding, put a little salt therein.

COPIES for WRITING.

Single line COPIES in PROSE, in an Alphabetical Order.

A.

A WISE man's anger is of short continuance.

Accustom children to a true notion of things.

Adversity is the touch-stone of friendship.

Approve not of that man who commends all you say.

A flattering companion is a dangerous enemy.

Accept nō preferment on dishonourable terms.

B 3

A wise

A wise man governs with ease, and is obey'd with pleasure.

A prudent woman sweetens her husband's misfortunes.

A covetous man is always in want.

Add to your faith, virtue, and to virtue, knowledge.

A prudent man values content more than riches.

A virtuous mind is rather to be chosen than promotion.

Authority is the main point in government.

Abstain from all appearance of evil.

A merry heart maketh a chearful countenance.

Anger resteth in the bosom of fools.

A soft answer turneth away wrath.

Adversity makes a man wise, rather than riches.

Advice comes too late, when a thing is done.

B

BE more afraid of secret sins, than open shame.

Brave spirits promote the publick good.

Be patient in adversity, and humble in prosperity.

Beauty without virtue is like a painted sepulchre.

Be less confident, and more diligent.

By learning to obey, you shall know how to command.

Brave men will do nothing unbecoming themselves.

By diligence and industry we come to preferment.

Buy thou the truth, and sell it not.

C

CONTENTMENT makes a man happy without a fortune.

Children require instruction, as well as provision.

Commit not that to another, that you can do yourself.

Custom in infancy, becomes nature in old age.

Chide him not too much, who confesses his fault.

Courtesy and humility, are marks of gentility.

Confession of a fault makes half amends for it.

Contentment is preferable to riches and honour.

Consider the shortness of life, and certainty of death.

Competency with content is a great happiness.

D.

DEATH destroys not the soul; but an ill life does.
Delight in what you undertake to learn

Drinking

Drinking is the drowning of cares, not the cure of them.
 Do unto others as you would have them do unto you.
 Death will comfortably end a well spent life.
 Devise not evil against thy neighbour.
 Do not render evil for evil unto any man.
 Drunkenness reveals what soberness conceals.
 Do not govern your life by fancy, but by reason.
 Delay in many cases is dangerous.

E.

EVERY delay of repentance is a cheat upon ourselves.

Education is that which makes the man.
 Every prudent man dealeth with knowledge.
 Exalt wisdom, and she shall promote thee.
 Ease and honour are seldom bed-fellows.
 Evil company makes the good bad, and the bad worse.
 Every idle thought, to judgment must be brought.

F.

FORSAKE the foolish, and go in the way of understanding.

Follow the dictates of reason, and you are safe.
 Forget not God in your mirth, nor yourself in your anger.

First learn to obey, before you pretend to govern.
 Feed your body as your slave, not as your master.
 Fools make a mock at sin.
 Few do good with what they have gotten ill.
 Future events must be left to providence.
 Frugality and industry are the hands of fortune.

G.

GIVE God the first and last of each days thought.
 Grieve not for those things which are out of your power.

Great sins will require great repentance.
 Good education is the foundation of man's happiness.
 Give as cheerfully as you do receive.
 God often corrects us in this life, to save us in the next.
 God is our refuge, a very present help in trouble.
 Good manners, grace and truth, are ornaments in youth.

Greater

Greater profit doth always come of learning than of play.
Good men are safe, when wicked ones are at odds.

H.

HE that will not work, should not eat.
Happiness is desired by all, but obtained by few.
He is in some degree wise that conceals his ignorance.
He that begins well, has done half the work.
Hear both parties before you give judgment.
He that boasts in his sins, glories in his shame.
He never wants comfort, that has content.
Hear, ye children, the instruction of your father.
Hear instruction; be wise, and refuse it not.
He that sins against conscience, sins with a witness.
He that swims in sin, must sink in sorrow.

I.

IF riches encrease, set not your heart upon them.
In prosperity prepare for adversity.
Idleness has no advocate, but many friends.
It requires as much care to keep, as to get an estate.
Industry keeps the mind clear, and the body healthy.
In the multitude of counsellors there is safety.
Industry is fortune's right-hand, and frugality her left.
Instruction and a good education is a durable portion.
It is good to have a friend, but bad to need him.

K.

KEEP back thy servant from presumptuous sins.
Knowledge is the treasure of the mind.
Know when to speak and when to hold your tongue.
Keep company with those who may make you better.
Keep thy tongue a prisoner, that your body may go free.
Knowledge puffs up some men, and humbles others.
Keep thy tongue from evil, and thy lips from guile.
Keep good company, and you shall be of that number.
Keep a close mouth, if you would have a wise head.
Keep at a distance from ill company.
Kings may win crowns, but cannot conquer death.

L.

LEARNING is the ornament of youth, and com-
fort of age.

Lam

Lament not the loss of that which you cannot retrieve.
 Lying lips are an abomination unto the Lord.
 Let another man praise thee, and not thy own mouth.
 Love not sleep, lest thou come to poverty.
 Life without a friend, is death with a witness.
 Learn to live as you would wish to die.
 Liberty is grateful to all, but destructive to many.
 Let not the work of to-day, be put off till to-morrow.

M.

MERCY and truth shall follow them who devise good.

Man has much to learn, but a short while to live.
 Malice seldom wants a mark to shoot at.
 Make provision for want in time of plenty.
 My son, if sinners entice thee, consent thou not.
 My son, gather instruction from thy Youth up.
 Many know good, but do not the good they know.
 Many live beggars all their life, that they may not die so.
 Many are led by the ears, more than by the understanding.

Many are made saints on earth, that never reach heaven.
 Mend your manners, and that will mend your fortune.

N.

NCESSITY is commonly the mother of invention.
 No torments are so great, but patience may vanquish.

Nothing is more contagious than an ill example.
 Not to grow better, is commonly to grow worse.
 No man hath seen God at any time.
 None should covet what cannot possibly be had.
 Nothing is constant in this uncertain world.
 Nothing is so hard, but diligence may overcome.
 Nature seldom changes with the climate.

O.

OUR life here is but a journey to the next world.
 Of all prodigality, that of time is the worst.
 One vice is more expensive than ten virtues.
 One fault cannot justify the commission of another.
 One bad companion may ruin many good men.

Of all poverty, that of the mind is most deplorable.
 Of all things, death should never be forgot.
 Only by pride cometh contention.
 Once well done is twice done.
 On present time depends our future state.
 Other peoples deaths should be memento's to our own.

PROVIDENCE consults our wants, not wantonness.
 Prosperity gains friends, and adversity tries them.
 Passion is a bad counsellor, and as ill a speaker.
 Pride, like a wild horse, over-throws his rider.
 Pursue useful and profitable studies.
 Poverty and shame attend those that refuse instruction.
 Provide against the worst, and hope for the best.
 Poor men want many things, but covetous men all.
 Put not off the main business of life, to the very article
 of death.
 Poor freedom is better than rich slavery.

QUENCH not the spirit; pray without ceasing.
 Quick at meat quick at work.
 Quench not your desires when they tend to good.
 Quick promisers, are slow performers.
 Quietness and content are mates most excellent.
 Quiet men have quiet minds, and enjoy content.
 Quarrellsome persons sometimes meet with their match.

REPENTANCE is the physick of the soul.
 Remember not the sins of my youth.
 Religion is best understood when most practised.
 Revenge not injuries, but forgive them.
 Reality is now become a great rarity.
 Riches profit not in the day of wrath.
 Remember thy Creator in the days of thy youth.
 Remember your duty to God, your neighbour, and your-
 self.
 Repent to-day, to-morrow may be too late.

SHAME

S.

SHAME and disgrace shall be the portion of fools,
 Sin goes before, and shame certainly follows after.
 Silence is an antidote against an envious tongue.
 Saying and doing should be but one man's office.
 Shew me a liar, and I will shew you a thief.
 Sin and sorrow are unseparable companions.
 Soft words sometimes work upon the proudest heart.

T.

THERE are none so poor as those whom God hates.
 The hope of reward sweetens labour.
 To praise yourself is the way to be dispraised.
 The power of example prevails more than precept.
 Truth is ashamed of nothing but to be hid.
 The greatest talkers are always the least doers.
 The worth of a thing is best known by the want of it.
 Those who wo'nt 'mend to-day, shall have more work
 to-morrow.
 The doing nothing is very near doing evil.
 To do good is the way to find it.
 Time, and tide, will for no man stay.

U.

USE soft words and hard arguments.
 Unlawful love ends generally in bitterness.
 Unto the upright there arises light in darkness.
 Undertake deliberately, but execute vigorously.
 Unsanctified prosperity is the bane of virtue.
 Unto thee will I cry, O Lord, be not silent to me.
 Unwillingly go to law, and willingly make an end.

V.

VIRTUE is commended of all, but followed by few.

Value not yourself by other mens opinion.
 Virtue often suffers, when vice goes unpunished.
 Valour can do little without discretion.
 Virtue to noblest acts the mind inclines.
 Variety is the beauty of the world.
 Virtue is first to be sought, and money the next.

W.

WISE men keep their expences short of their income.

Whatever is forbid in act, is also in thought.

Wicked practices discover bad principles.

Would you be wise, endeavour to be good,

Wisdom to the mind, is like health to the body.

We must not blame fortune for our own faults.

Would you be rich, be industrious; if wise, be studious.

Where there is no fault, there needs no pardon.

When passion rides then give reason the reins.

Weight and measure takes away strife.

X.

XERXES wept at the thoughts that his vast army would be dead in a 100 years.

Xenophon accounted the wise man happy.

Xenophon was a learned general.

Xerxes whipt the sea, because it would not obey his command.

Xerxes wept at the changeable state of man.

Y.

YOUNG men, see that you honour the aged.

Youth is full of disorder, and age of infirmity.

You may know men by the company they keep.

Young men go to death, but death goes to old men.

Youngmen in strength should provide against age and weakness.

Your vice and not poverty, is your shame.

You must crack the shell, before you can have the kernel

Yield quietly to what must come unavoidably:

Z.

ZEALOUSLY strive for an eternal crown.

Zeal grounded on knowledge enlivens devotion.

Zeal for religion cannot warrant revenge.

Zeal in a good cause, commands applause.

Zeal without knowledge is but religious wild-fire.

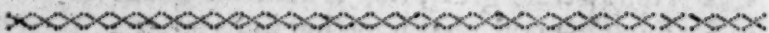
Zeal, if not rightly directed, is very pernicious.

AS you expect that men should deal by you,
 So deal by them, and give each man his due.
Better it is to gain great reputation,
 Than heap up wealth with trouble and vexation.
Constraint in all things makes the pleasure less:
 Sweet is the love that comes with willingness.
Despair of nothing, that you would attain:
 Unwearied diligence your point will gain.
Experience best is gain'd without much cost:
 Read men and books, then practise what thou know'st
Fortune may sometimes prove true virtue's foe,
 But cannot work her utter overthrow.
Greatness in virtue only's understood:
 None's truly great, that is not truly good.
Honour's a god, that none but fools adore:
 The wise have nobler happiness in store.
If all mankind would live in mutual love,
 This world would much resemble that above.
Kingdoms, like private persons, have their fate,
 Sometimes in high, sometimes in low estate.
Let each man follow close his proper trade,
 And all affairs will soon be better made.
Mens fancies vary strangely, like their faces;
 What one commends another man disgraces.
Numbers itself is at a loss to guess
 Th' endurance of our future happiness.
OH! that the sons of men would once be wise,
 And learn eternal happiness to prize!
Pray thou to God, that he may be inclin'd
 To grant thee health of body and of mind.
Quarelsom brawling, gaming, fuddling shun:
 Thrice happy they, that ne'er such courses run.
Remember, time will come, when we must give
 Account to God, how we on earth do live.
Some men get riches, yet are always poor;
 Some get no riches, yet have all things store.
They that are proud, and other men disdain,
 Do often meet with hate and scorn again.
Virtue is prais'd, but little practis'd by us;
 So loose the age, that few are truly pious.
What's human life? a day, a race, a span,
 A point, a bubble, froth: so vain is man.

X *Enophilus* did well in health abide
 One hundred seven years, and then he dy'd.
Young men, take pains, be brisk, and I'll engage,
 Your youthful pains, will pleasure yield in age.
Z *Aleucus* made his laws so strict, to those,
 Who acted whoredom, both their eyes should lose.



Of the POINTS, or STOPS, and other MARKS used in writing and reading; with their characters, places and signification.



THE *stops* are used to shew what *distance of time* must be observed in *reading*: and they are so absolutely necessary to the *better understanding* of what we *write*, and *read*, that without a *strict attention* to them, all *writing* would be *confused*, and liable to many *misconstructions*.

Stops, considered as *intervals in reading*, are but four, viz. *comma*, *semicolon*, *colon*, and *period*, or *full stop*: and these bear a kind of *musical proportion of time* one to another: for a *comma* stops the reader's voice, while he may privately, with deliberation tell *one*; the *semicolon*, *two*; the *colon*, *three*; and the *period*, *four*.

Their characters are thus.

Comma (,) a circular dash at the foot of a word.

Semicolon (;) a point over the comma.

Colon (:) two points.

Period (.) a single point at the foot of a word.

But if a question be ask'd, there's a circular stroke upon a short line put over the period, and 'tis call'd an *interrogation*; thus (?)

If a sudden wondering be express'd, then a streight line is placed over the period, and 'tis call'd a note of *admiration*; thus (!)

If one sentence be enclosed within another, of which it is no part, then 'tis put between two large half-circles called

called a *parenthesis*, thus () and, in reading, this doth something lower the tone of the voice, as a thing, that comes in by the by, interrupting the main *coherence* of the *period*, and restraining it from being taken in so large a sense as it might otherwise bear. Each part of it is equal in time to a *comma*.

These, that follow, are the most usual marks in writing.

Accent (') being placed over a vowel, notes, that the tone, or stress of the voice in pronouncing, is upon that syllable.

Apostrophe (') a comma at the head of letters, denotes some letter, or letters, left out for quicker pronunciation; as *i'll*, for *I will*: *wou'd'st*, for *wouldest*; *sha'n't*, for *shall not*; *ne'er*, for *never*.

Asterisk (*) a star, guides to some remark in the margin, or at the foot of the *page*. Several of them set together signify, that there is something wanting, defective, or immodest in that passage of the *author*.

Breve (°) is a crooked mark over a vowel, and denotes that it is sounded quick, or short.

Caret (^) is plac'd underneath the line, and denotes, that some letter, word, or sentence, is left out by mistake, and must be taken in exactly where it points.

Circumflex (^) is the same in shape as the *caret*, but is always plac'd over some vowel of a word, to denote a long syllable; as, *eu-phrâ-tes*.

Dieresis (¨) is two points plac'd over two vowels of a word, that would otherwise make a diphthong, and parts 'em into two several syllables.

Hyphen (-) is a straight mark across, which, being set at the end of a line, denotes, that the syllables of a word are parted, and that the remainder of it is at the beginning of the next line.

Here note, that whenever a word is thus parted, the syllables must be carefully separated by the rules of spelling.

'Tis us'd also to join, or compound, two words into one; as, *ale-house*, *inn-keeper*.

Being plac'd over a vowel it is not then properly call'd a *hyphen*, but a *dash*, which in writing signifies the omission of *m* or *n*; as, *nothing is more commendable*

thā fair writing; for, nothing is more commendable than fair writing

Index (☞) the forefinger pointing, signifies that passage to be very remarkable, against which 'tis plac'd.

Obelisk (†) is us'd as well as the *asterism* *, to refer the reader to the margin. In *dictionaries* it commonly denotes a word to be obsolete, or less in use.

Paragraph (¶) or division, comprehends several sentences under one head, or subject.

Parenthesis [] or brackets, include words or sentences of the same value or signification with those they are joind to, which may be us'd in their stead.

Quotation (") or a double comma reverse, at the beginning of a line, shews a passage quoted out of an author in his own words.

Section (§) or division, is us'd in subdividing of a chapter, or book, into lesser parts, or portions,

OF ABBREVIATIONS.

Abbreviations, are very necessary for dispatch of business. For by them, we expeditiously express, or set down a long word, shortening it, by making some initial letter or letters belonging to the word, to express it; as in the TABLE following.

A. B. <i>artium baccalaureus</i> , or bachelor of arts	Ap. apostle
Abp. archbishop	Adml. admiral
Acct. account	Agt. against
A. D. <i>anno domini</i> , or the year of our Lord	Amot. amount
A. M. <i>anno mundi</i> , or the year of the world	Aug. august
Adms. administrators	A. R. <i>anno regni</i> , or in the year of the reign
A. M. <i>artium magister</i> , or master of arts	B. A. bachelor of arts
Ana. of each alike quantity	B. D. bachelor of divinity
	B. V. blessed virgin
	Bart. baronet

Bp. bishop	X Jno. John
C. chapter	X Knt. knight
Cant. Canterbury	X L. <i>librae</i> , or pounds
Cent. <i>centum</i> or hundred	X Lieut. lieutenant
Chan. chancellor	X L. L. D. <i>legum doctor</i> , or
Chap. chapter	doctor of laws
Capt. captain	X Mar. March
Cl. <i>clericus</i> or clerk	X M. A. master of arts
Co. company	X Maj. majesty
Col. Colossians, colonel	X Monf. monsieur
Comrs. commissioners.	X Mr. master
Con. constance	X Mrs. mistress
Cr. creditor	X M. D. <i>medicinæ doctor</i> , or
C. C. C. <i>corpus christi</i> col-	doctor of physick
lege	X M. S. <i>memoriæ sacrum</i> , or
C. S. <i>custos sigilli</i> , or the	sacred to the memory;
keeper of the seal	<i>also</i> manuscript
C. P. S. <i>custos privati sigil-</i>	X N. note
<i>li</i> , or keeper of the	X N. B. <i>nota bene</i> , note,
privy seal	mark well, or observe
Dr. doctor, or debtor	X N. S. new stile
Do. ditto	X No. number
D. <i>denarii</i> , or pence	X n. l. <i>non liquet</i> , or it does
Dec. or xber, or iober, De-	not appear
cember	X Nov. or 9ber, November
Devon. Devonshire	X Obj. objection
Decd. deceased	X O. W. old word
Doct. doctrine	X O. S. old stile
D. D. doctor of divinity	X Oct. or 8ber, October
E. g. <i>exempli gratiâ</i> , or for	X Oxon. Oxford
example	X Pd. paid
Esq; esquire	X p. <i>per</i> , or by
Exon. Exeter	X per ct. <i>per centum</i> , or by
Feb. February	the hundred
Gent. gentleman	X Parl. parliament
Hund. hundred	X Philom. <i>Philomathes</i> , or
E. <i>id est</i> , or that is	lover of learning
I. H. S. <i>Iesus hominum</i>	X Philo-math. <i>Philo-mathe-</i>
<i>salvator</i> , or Jesus sa-	<i>maticus</i> , or a lover of
viour of men.	mathematicks
Inst. instant	X P. S. postscript
Jan. January	X Q. question

q. d. <i>quasi dicat</i> , or as if	theologie professor, or
he should say	professor or doctor of
q. l. <i>quantum libet</i> , or as	divinity.
much as you please	The. Theophilus
q. s. <i>quantum sufficit</i> , or a	Tho. Thomas
sufficient quantity	V. verse
qr. quarter, or a farthing	Viz. <i>vide icet</i> , or to wit, or
Rev. reverend	that is to say
Rob. Robert	Will. or Wm. William
Reg. prof. <i>regius professor</i>	Wp. worship
Rt. Hon. right honourable	Xn. christian
S. A. <i>secundum artem</i> , or	Xt. Christ
according to art	Xtopher. Christopher
St. saint	ye the
Sect. section	yn then
Sept. or 7ber, September	yo' you
Serj. serjeant	ym them
Serv. servant	yt that
Salop. Shropshire	yr your
Sr. sir	Z. zeal
ss. <i>semissis</i> , or half a pound	&c. <i>et cætera</i> , or and the
S. S. T. P. <i>sacro-sanctæ</i>	rest, or and such like



To write on paper GOLD LETTERS, called
SHELL-GOLD

LAY a little leaf gold upon a fine earthen plate, and drop thereon a little clear virgin's honey, then work it up with your clean knife's haft, untill it is stiff like unto a paste, which put into an oyster shell, and do it close; when you are to write with it, put a little gum water on the side of the gold, and mix a little thinly, fit for your pen.

How to write SECRET LETTERS

WRITE what you would have seen on one side of the paper with common ink, and on the other side

side with milk, that which you would have secret; and when you would make the same legible, direct your friend to hold that side, which is written with ink, to the fire, and the milky letters will shew bluish on the other side, and easy to be read.

Another way.

YOU may first write a letter, that may carry good sense, to your friend, but let the lines be wide asunder: then between these lines write your secret letter, with gall water only, wherein the galls have been infused but a little time; for if after you have written with it, there be any sensible colour left upon the paper, you must throw away the water, and make new; this being dry, and of one colour with the paper, will give no cause of suspicion; and the rather, because the letter purporteth a sufficient sense already. Now for the discovery of it, you must dissolve some copperas in fair water, and with a fine pencil, dipt in the copperas water, you must moisten the interlining of your letter, and thereby you shall make it legible.

*How to write both BLUE and RED-LETTERS at once,
with the same ink and pen, and upon the same paper.*

PUT the quantity of a hazel nut of litmose blue to three spoonfuls of conduit water, wherein some gum-araback is dissolved; and when it hath settled the space of an hour, if you write therewith, you shall have perfect blue letters: and if you dip a pencil in the juice of lemons, and wet some part of the paper therewith, and afterwards let your paper dry again, and then write upon the place where the juice of the lemon was laid, with your blue ink, the letters will suddenly become red, and in all the rest of the paper, the letters will be blue.

A POEM in praise of the invention of WRITING.

BLEST be the man! his memory at least,
 Who found the art, thus to unfold his breast;
 And taught succeeding times an easy way,
 Their secret thoughts by letters to convey;
 To baffle absence, and secure delight,
 Which, 'till that time, was limited to sight.
 The parting farewell spoke, the last adieu,
 The less'ning distance past, the loss of view,
 The friend was gone which some kind monuments gave,
 And absence separated like the grave.
 When for a wife the youthful patriarch sent,
 The camels, jewels, and the steward went,
 And wealthy equipage, tho' grave and slow,
 But not a line, that might the lover show,
 The ring and bracelets woo'd her hands and arms,
 But had she known of melting words the charms
 That under secret seals in ambush lie,
 To catch the soul, when drawn into the eye,
 The fair Assyrian had not took his guide,
 Nor her soft heart in chains of pearl been ty'd.

LETTERS on Compliment, Business,
and several other Occasions.

IHear present you with a collection of useful letters on
 such subjects as may naturally occur to a young man,
 both before, and at his first setting out in the world;
 which, if read attentively, and copied carefully, will
 soon correct his orthography, amend his manner of
 writing, and serve him to form a tolerable Stile.

L E T T E R I.

From a FATHER to his SON, on his keeping bad company, bad hours, &c. in his Apprenticeship.

Dear Son,

I AM very much concerned to hear, that you are of late fallen into bad company; that you keep bad hours, and give great uneasiness to your Master, and break the rules of his family: that when he expostulates with you on this occasion, you return pert and bold answers; and, instead of promising or endeavouring to amend, repeat the offence; and have enter'd into clubs and societies of young fellows, who set at nought all good example, and make such persons as would do their duty, the subject of their ridicule, as persons of narrow minds, and who want the courage to do as they do.

Let me, on this occasion, expostulate with you, and set before you the evil of the way you are in.

In the first place: What can you mean by breaking the rules of a family you had bound yourself by contract to observe? Do you think it is *honest*, to break thro' engagements into which you have so solemnly entered; and which are no less the rules of the corporation you are to be one day free of, than those of a private family?—Seven years, several of which are elapsed, are not so long a term, but that you may see it determined before you are over-fit to be trusted with your own conduct: twenty-one or twenty-two years of age is full early for a young man to be his own master, whatever you may think; and you may surely stay till *then*, at least, to chuse your own hours, and your own company; and, I fear, as you go on, if you do not mend your ways, your discretion will not *then* do credit to your choice. Remember, you have no time you can call your own, during the Continuance of your contract: and must you abuse your master in a double sense; rob him of his time, especially if any of it be hours of business; rob him of his rest; break the peace of his family, and give a bad example to others? and all for what?
why

why to riot in the company of a set of persons, who contemn, as they teach you to do, all order and discipline; who, in all likelihood, will lead you into gaming, drinking, swearing, and even more dangerous vices, to the unhinging of your mind from your business, which must be your future support.

Consider, I exhort you, in time, to what these courses may lead you. Consider the affliction you will give to all your friends, by your continuance in them. Lay together the substance of the conversation that passes in a whole evening, with your frothy companions, after you are come from them; and reflect what solid truth, what useful lesson, worthy of being inculcated in your future life, that whole evening has afforded you; and consider, whether it is worth breaking thro' all rule and order for?—whether your present conduct is such as you would allow in a servant of your own? whether you are so capable to pursue your business with that ardor and delight next morning, as if you had not drank, or kept bad hours, over night? if not, whether your master has not a double loss and damage from your mis-spent evenings? whether the taking of small liberties, as you may think them, leads you not on to greater? for, let me tell you, you will not find it in your power to stop when you will: and then, whether any restraint at all will not in time be irksome to you?

I have gone thro' the like servitude with pleasure and credit. I found myself my own master full soon for my discretion: what you think of yourself I know not; but I wish you may do as well for your own interest, and reputation too, as I have done for mine: and I'll assure you, I should not have thought it either creditable or *honest* to do as you do. I could have stood the laugh of an hundred such vain companions as you chuse, for being too narrow-minded to break through all moral obligations to my master, in order to shew the bravery of a bad heart, and what an abandon'd mind dared to perpetrate. A bad beginning seldom makes a good ending, and if you were assured that you could stop when you came for yourself, which is very improbable, how will you answer it to equity and good conscience, that you will not do so for your master? there is, let me tell you,

you, more true bravery of mind in forbearing to do an injury, than in giving offence.

You are now at an age, when you should study to *improve*, not *divert*, your faculties. You should now lay in a fund of knowledge, that in time, when ripened by experience, may make you a worthy member of the commonwealth. Do you think you have nothing to learn, either as to your business, or as to the forming of your mind? would it not be much better to chuse the silent, the sober conversation of books, than of such companions as never read or think: an author never commits any but his best thoughts to paper; but what can you expect from the laughing noisy company you keep, but frothy prate, indigested notions, and thoughts so unworthy of being remember'd, that it is the greatest kindness to forget them?

Let me intreat you then, my dear son, for your family's sake, for your own sake, before it be too late, to reflect, as you ought, upon the course you are enter'd into. By applying yourself to books, instead of such vain company, you will be qualified in time for the best of company, and to be respected by all ranks of men. This will keep you out of unnecessary expences, will employ all your leisure time, will exclude a world of temptations, and open and enlarge your notions of men and things, and, finally, set you above that wretched company which now you seem so much delighted with. And one thing let me recommend to you, that you keep a list of the young men of your standing within the compass of your knowledge, and for the next seven years, observe what fate will attend them: see, if those who follow *not* the course you are so lately enter'd into, will not appear in a very different light from those who *do*; and from the industry and prosperity of the one, and the decay or failure of the other (if their vain ways do not blast them before, or as soon as they begin the world), you'll find abundant reason every day to justify the truth of the observations I have thrown together. As nothing but my affection for you could possibly influence me to these expostulations, I hope for a proper effect from them, if you would be thought well of by, or expect any favour from,

Your loving Father.

Your

Your master will, at my request, send me word of the success of my remonstrances.

LETTER II.

Advice from an uncle, to a young Beginner, &c.

Dear Thomas,

AS you are now entering into the world, and will probably have considerable dealings in your business, the frequent occasions you will have for advice from others, will make you desirous of singling out among your most intimate acquaintance, one or two, whom you would view in the light of friends.

In the choice of these, your utmost care and caution will be necessary: for, by a mistake here, you can scarcely conceive the fatal effects you may hereafter experience: wherefore it will be proper for you to make a judgment of those who are fit to be your advisers, by the conduct they have observed in *their own* affairs, and the reputation they bear in the world. For he who has by his own indiscretions undone himself, is much fitter to be set up as a land-mark for a prudent mariner to shun his courses, than an example to follow!

Old age is generally slow and heavy, youth headstrong and precipitate; but there are old men who are full of vivacity, and young men replenished with discretion; which makes me rather point out the *conduct* than the *age* of the persons with whom you should chuse to associate; tho' after all, it is a never-failing good sign to me of prudence and virtue in a young man, when his seniors chuse his Company, and he delights in theirs.

Let your endeavours therefore be, at all adventures, to consort yourself with men of sobriety, good sense and virtue; for the proverb is an unerring one, that says, *A man is known by the company he keeps.* If such men you can single out, while you improve by their conversation, you will benefit by their advice; and be sure remember one thing, that tho' you must be frank and unreserved in delivering your sentiments, when occasions offer, yet that you be much readier to *hear* than *speak*; for to this

. purpose

purpose it has been significantly observed, that nature has given a man *two ears*, and but *one tongue*. Lay in therefore by observation, and a modest silence, such a store of ideas, that you may, at their time of life, make no worse figure than they do; and endeavour to benefit yourself rather by other peoples ills than your own. How must those young men expose themselves to the contempt and ridicule of their seniors, who, having seen little or nothing of the world, are continually shutting out by *open mouths*, and *closed ears*, all possibility of instruction, and making vain the principal end of conversation, which is improvement. A silent young man makes generally a wise old one, and never fails of being respected by the best and most prudent men. When therefore you come among strangers, hear every one speak before you deliver your own sentiments; by this means you will judge of the merit and capacities of your company, and avoid exposing yourself, as I have known many do, by shooting out hasty and inconsiderate bolts, which they would have been glad to recal, when perhaps a silent genius in company has burst out upon them with such observations, as have struck consciousness and shame into the forward speaker, if he has not been quite insensible of inward reproach.

I have thrown together, as they occur'd, a few thoughts, which may suffice for the present to shew my care and concern for your welfare. I hope you will constantly, from time to time, communicate to me whatever you shall think worthy of my notice, or in which my advice may be of use to you. For I have no pleasure in this life equal to that which the happiness of my relations gives me. And of this you may be assured; for I am, and ever must be,

Your loving uncle.

L E T T E R III.

General rules for conversation, &c. From a CLERGYMAN to a young TRADESMAN.

Dear HENRY,

AS I had not an opportunity of saying so much to you as I wished when you were last here; I send this to inform you of some things, in your general conversation, which I think would be proper for you to observe, and amend; particularly *your excessive itch for talking*; which discovers itself alike on all occasions. I have always flatter'd myself, that you do not want sense; and am willing to hope I have not been deceived: but the dangerous self-sufficiency of most young men seems violently to have seized you, which, I hope, a little reflexion will remove.

The art of rendering yourself agreeable in conversation is worth your serious study: 'tis an advantage few can boast, tho' sought after by all; and nothing is so constant an enemy to success in those who would excel in this art, as the harbouring an opinion of their own proficiency, before they have attain'd to any tolerable degree of knowledge in what they imagine themselves possessed of. Conversation, where it is rightly managed, must be so conducted as to let each member of the company have a share in the *pleasure and applause* it affords: if you are six in number, after you have told a story, or made any remark which gives a general satisfaction; you must consider it the right of another to call *your* attention in his turn; and, unless particularly requested, it betrays a great weakness to *follow yourself*. No doubt but you love to be admired: and have not others the same passion? you believe your wit more brilliant than theirs: are you sure, that they are not of the same opinion as to their own? If a man speaks little, you must not from thence conclude him willing to give up every claim to conversable merit: perhaps he cannot sing: but to be sure he is as desirous of having his *peculiar humour*, or his *dry joke*, applauded, as you are to be

be intreated another song. If he is no mathematician, perhaps he is versed in religious disputation; if he despises plays, he may admire history; tho' he understands not geography, he may yet know how to describe the humours of mankind: and tho' he pretends not to politics, he may have a turn for some more useful science. When these are considered, if his modesty is great, you cannot oblige him more than by throwing an opportunity in his way to display his capacity on the subject he believes himself most able to handle with advantage: for, in order to suport a thorough good humour, a man must be pleased with *himself* as well as with *others*. When this is properly taken care of, conversation seldom fails to prove entertaining: and to the neglect of this are owing many of the *yawning* hours spent in companies composed of men not incapable of behaving agreeably.

The manner of telling a story is also worth your notice: you have known the pleasure of hearing a long one well told: Mr. *French* has an admirable talent in this way: but then you must observe, that half the pleasure he gives, arises from his happily avoiding any of the silly digressions, which are the great cause of a story's seeming tedious: you never hear him mingle his relation with, *I remember very well it was the same day that Squire Worthy's son came of age.—I bought my bay nag the very day before, at such a fair, being a Friday that year;—or, I can scarce think of it without laughing;—but, however, as I was saying:—*and a hundred more such dead-weights to attention. Nor does he ever praise a story before he relates it; a fatal rock to many a good relation: for when a story wants a preparatory recommendation, it ought not to be told; and even when the relation is possible, the generality of auditors are apt to persuade themselves,

The mountain labours, and a mouse is born.

These are loose and general hints; but by a due improvement of them you will find yourself very sensibly grow more and more agreeable where-ever you converse. An ease and becoming freedom you already

have, and by the addition of discretion in your use of them, and complaisance to others, you will probably succeed in the desire so predominant in you, of being admired by men of sense and judgment. Which will be no small pleasure to

Your sincere friend.

LETTER IV.

A young man in business, to a father, desiring leave to address his daughter.

SIR,

I HOPE the justness of my intentions will excuse the freedom of these few lines, whereby I am to acquaint you of the great affection and esteem I have for your daughter. I would not, Sir, offer at any indirect address, that should have the least appearance of Inconsistency with her duty to you, and my honourable views to her; chusing, by your influence, if I may approve myself to you worthy of that honour, to commend myself to her approbation. You are not insensible, Sir, by the credit I have hitherto preserved in the world, of my ability, by God's blessing, to make her happy: and this the rather emboldens me to request the favour of an evening's conversation with you, at your first convenience, when I will more fully explain myself, as I earnestly hope, to your satisfaction, and take my encouragement or discouragement from your own mouth. I am, Sir, mean time, with great Respect,

Your most obedient humble servant.

LETTER V.

From a young lady to her father, acquainting him with a proposal of marriage made to her.

Honoured Sir,

Canterbury, June 10.

I THINK it my duty to acquaint you, that a gentleman of this town, by name Mr. *Truelove*, and by business a linen-draper, has made some overtures to my

my cousin *Telltruth*, in the way of courtship to me. My cousin has brought him once or twice into my company, which he could not well decline doing, because he has dealings with him, and has an high opinion of him and his circumstances. He has been set up four years, and has very good business, and lives in credit and fashion. He is about twenty nine years old, and a likely man enough; he seems not to want sense or manners; and is come of a good family. He has broke his Mind to me, and boasts how well he can maintain me: but, I assure you, Sir, I have given him no encouragement; and told him, that I had no thoughts of changing my condition, yet awhile; and should never think of it but in obedience to my parents; and I desired him to talk no more on that subject to me. Yet he resolves to persevere, and pretends extraordinary affection and esteem. I would not, Sir, by any means, omit to acquaint you with the beginning of an affair that would be want of duty in me to conceal from you, and shew a guilt and disobedience unworthy of the kind indulgence and affection you have always shewn to, Sir,

Your most dutiful daughter.

My humble duty to my honour'd mother, love to my brother and sisters; and respects to all friends. Cousin *Telltruth*, and his wife and sister, desire their kind respects. I cannot speak enough of their civility to me.

L E T T E R VI.

The young gentleman's letter to the father, apprising him of his affection for his daughter.

S I R,

Canterbury, June 12.

I TAKE the liberty, though personally unknown to you, to declare the great value and affection I have for your worthy daughter, whom I have had the honour to see at my good friend Mr. *Telltruth's*. I should think myself intirely unworthy of her favour, and of your approbation, if I could have a thought of influencing her

resolution but in obedience to your pleasure; as I should, on such a supposition, offer an injury likewise to that prudence in *herself*, which, I flatter myself, is not the least of her amiable perfections. If I might have the honour of your Countenance, Sir, on this occasion, I would open myself and circumstances to you, in that frank and honest manner which should convince you of the sincerity of my affection for your daughter, and at the same time of the honourableness of my intentions. In the mean time, I will in general say, that I have been set up in my business, in the linen-drapery way, upwards of four years; that I have a very good trade for the time: that I had 2000 *l.* to begin with, which I have improved to 2500 *l.* as I am ready to make appear to your satisfaction: that I am descended of a creditable family; have done nothing to stain my character; and that my trade is still farther improveable, as I shall, I hope, enlarge my bottom. This, Sir, I thought but honest and fair to acquaint you with, that you might know something of a person, who sues to you for your countenance, and that of your good lady, in an affair that I hope may prove one day the greatest happiness of my life; as it *must* be, if I can be blessed with that, and your dear daughter's approbation. In hope of which, and the favour of a line, I take the liberty to subscribe myself, good Sir,

Your most obedient humble servant.

L E T T E R. VII.

From a country chapman beginning trade, to a city dealer, offering his correspondence.

S I R,

Leeds, Oct. 20.

THE time of my apprenticeship with Mr. *Trusty*, of this town, being expired, I am just going to begin for myself in *Wakefield*, having taken a shop there for that purpose. And as I know the satisfaction you always gave to my master in your dealings, I make an offer to you of my correspondence, in expectation that you will use me as well as you have done him, in what-

ever

ever I may write to you for. And this I the rather expect, as you cannot disoblige Mr. *Trusty* by it, because of the distance I shall be from him; and I shall endeavour to give you equal content with regard to my payments, &c. Your speedy answer, whether or no, you are disposed to accept of my offer, will oblige

Your humble servant.

L E T T E R VIII.

From a maid-servant in town, acquainting her father and mother in the country with a proposal of marriage, and asking their consents.

Honoured father and mother,

I THINK it my duty to acquaint you, that I am addressed to for a change of condition, by one Mr. *John Killcow*, who is a butcher, and lives in the neighbourhood by us. He is a young man of a sober character, and has been set up about three years, has good business for his time, and is well beloved and spoken of by every one. My friends here think well of it, particularly my master and mistress; and he says, he doubts not, by God's blessing on his industry, to maintain a family very prettily: and I have fairly told him, how little he has to expect with me. But I would not conclude on any thing, however, till I had acquainted you with his proposals, and asked your blessings and consents. For I am, and ever will be,

Your dutiful daughter.

L E T T E R IX.

From the parents, in answer to the preceeding.

Dear Nanny,

WE have received your dutiful letter. We can only pray to God to direct and bless you in all your engagements. Our distance from you must make us leave every thing to your own discretion; and as you
are

are so well satisfied in Mr. *Killcow's* character, as well as all friends, and your master and mistress, we give our blessings and consents with all our hearts: we are only sorry we can do no more for you. But let us know when it is done, and we will do some little matters, as far as we are able, towards house-keeping. Our respects to Mr. *Killcow*. Every body joins with us in wishes for your happiness; and may God bless you, is all that can be said by

Your truly loving father and mother.

L E T T E R X.

From the same, acquainting her parents with her marriage.

Honoured father and mother,

I WRITE to acquaint you, that last *Thursday* I was married to Mr. *Killcow*, and am to go home to him in a fortnight. My master and mistress have been very kind, and have made me a present, towards house-keeping, of four guineas. I had saved thirty pounds in service, and that is all. I told him the naked truth of every thing, and indeed did not intend to marry so soon; but when I had your letter, and shew'd it him, he would not let me rest till it was done. Pray don't straiten yourselves out of love to me. He joins with me in saying so, and bids me present his duty to you, and tell you, that he fears not to maintain me very well. I have no reason to doubt of being very happy. And your prayers for a blessing on both our industry, will, I hope, be a means to make us more so. I am, and ever shall be, with respects to all friends,

Your most dutiful daughter.

L E T T E R

L E T T E R XI.

A father to a son, to dissuade him from the vice of drinking to excess.

My dear son,

IT is with a grief proportioned to my love, which is extreme, that I understand you have of late neglected your studies, and given yourself up to the odious vice of drinking: what shall I say, what shall I do, to engage you to quit this pernicious practice, before it becomes such a habit, that it will be impossible, or at least very difficult for you to cast it off? Let me require, let me intreat you, to give a suitable attention to what I have to say on this head, which I shall offer rather as a warm friend, than an angry father; and as I address myself to your reason, I will leave it to yourself to judge of the truth of the observations I have to make to you.

In the first place, with respect to *health*, the greatest jewel of this life, it is the most destructive of all vices: *vertigoes, asthma's, palsies, gouts, apoplexies, colicks, fevers, consumptions, dropsies, stone, and hypocondriack diseases*, are naturally introduced by excessive drinking.

All the rest of the vices together, are not so often punished with sudden death as this one: what fatal accidents, what quarrels, what breaches between friend and friend, are owing to it!

Then, in the second place; How does it deface reason, destroy all the tender impulses of nature, make a wise man a fool, and subject persons of the brightest parts to the contempt of the weakest, and even, in time, extinguish those shining qualities which constitute the difference between a man of sense and a blockhead! For, as a certain very eminent author very well observes, fools having generally stronger nerves, and less volatile spirits, than men of fine understandings; that which will rouse the one, will make the other either stupid or frantick; and tho' it sometimes, while the fit continues, strengthens the imagination, yet it always depresses the judgment; and, after the fit is over, both those faculties

ties languishes together, till, in time, it quenches the imagination, impairs the memory, and drowns the judgment.

Most other vices are compatible, as the same author observes, with several virtues; but drunkenness runs counter to all the duties of life. A great drinker can hardly be either a good husband, a good father, a good son, a good brother, or a good friend: it lays him open to the worst company, and this company frequently subjects him to lewd women, gaming, quarrels, riots, and often murders. All other vices, even the greatest of vices, as ambition, unchastity, bigotry, avarice, hypocrisy, detest this unnatural and worse than beastly vice; for the beasts themselves, even the uncleanest of them, know nothing of it, much less practise it.

Other vices, indeed, make men *worse*, says this judicious author; but this *alters* men from *themselves*, to that degree, that they differ not more from their *present companions*, than from their *former selves*. A habitude of it will make the prudent inconsiderate, the ambitious indolent, the active idle, and the industrious slothful; so that their affairs are ruin'd for want of application, or by being intrusted in the hands of those who turn them wholly to their own advantage, and, in the end, to the ruin of those who employ them.

I have written a long letter already: yet have I still more to say; which, that I may not tire you, I will leave to another opportunity.

Your most indulgent father.

L E T T E R XII.

From an apprentice to his master, begging forgiveness for a great misdemeanor.

Good Sir,

I AM so ashamed of myself for the last occasion I have given you to be angry with me, after my repeated promises of amendment, that I have not the courage to speak to you. I therefore take this method of begging you to forgive what is past; and let this letter testify against

against me, if ever I wilfully or knowingly offend again for the future. You have children of your own. They may possibly offend; tho' I hope they never will as I have done. Yet, Sir, would you not wish they might meet with pardon, if they should, rather than reprobation?—— My making or my ruin, I am sensible, lies in your breast. If you will not forgive me, sad will be the consequence to me, I doubt. If you do, you may save a soul, as well as a Body, from misery; and I hope, Sir, you will weigh this with your usual goodness and consideration. What is past, I cannot help; but for what is to come, I do promise, if God gives me health and power, that my actions shall testify for me how much I am, good Sir,

Your repentant and obliged servant.

L E T T E R XIII.

The master's answer.

ROBERT,

YOUR letter has affected me so much, that I am willing once more to pass over all you have done. Surely I may at last depend on these your solemn assurances, and, as I hope, deep contrition! If not, be it as you say, and let your letter testify against you for your ingrateful baseness; and for me, in my readiness (which however shall be the last time) to forgive one that has been so much used to promise, and so little to perform. But I yet hope for better, because I yet wish you well; being as you use me,

Yours, or otherwise.

L E T T E R XIV.

From an apprentice, where the master is too remiss in his own affairs.

Honoured Sir and Madam,

YOU desire to know how I go on in my business. I must needs say, very well in the main; for my master leaves every thing, in a manner, to me. I wish

with he did not, for his own sake. For tho' I hope he will never suffer on the account of any wilful remissness or negligence, much less want of fidelity in me, yet his affairs do not go on so well as if he was more in them, and less in the tavern. But it becomes not me to reflect upon my master, especially as what I may write or say on this head, will rather expose his failings, than do him service; for as they must be his equals that should reprove him, so all a servant can observe to others will do more harm than good to him. One thing is at *present* in my own power, and that is, to double my diligence, that his family suffer as little as possible by his remissness: And another, I hope, by God's grace, *will* be; and that is, to avoid in myself, when my time comes, those failings which I see so blameable in him. And as this will be benefiting properly by the example (for that bee must be worse than a drone, that cannot draw honey from a bitter as well as a sweet flower) so it will give you the pleasure of knowing, that your good instructions are not thrown away upon me; and that I am, and ever will be,

Your dutiful son.

LETTER XV.

To a country correspondent, modestly requesting a balance of accompts between them.

SIR,

I FIND myself constrained, by a present exigence, to beg you to balance the accompt between us. Tho' matters have run into some length, yet would I not have apply'd to you, had I known so well how to answer my pressing occasions any other way. If it suits you not to pay the whole, I beg, Sir, you will remit me as much towards it as you can, without prejudice to your own affairs; and it will extremely oblige

Your most humble servant.

LET-

LETTER XVI.

In answer to the preceeding.

SIR,

I Am very glad I have it in my power to send you now, directly, one hundred pounds, on account between us, which I do by our carrier, who will pay you in specie. I will soon remit you the balance of your whole demand, and am only sorry that I gave occasion for this application for what is so justly your due. When I send you the rest, which will be in a few days, if I am not greatly disappointed, I will accompany it with an order, which will begin a new debt; but which I hope to be more punctual in discharging, than I have been in the last. I am, very sincerely,

Your friend and servant.

LETTER XVII.

To a daughter in a country town, who encourages the address of a subaltern (a case too frequent in country places).

Dear Nanny

I HAVE been under the deepest affliction ever since I heard of your encouraging the addresses of a soldier, whether serjeant or corporal I know not, who happens to quarter next door to your uncle.

What, my dear child, can you propose by such a match? Is his pay sufficient to maintain himself? If it be, will it be sufficient for the support of a family?

Consider, there will be no opportunity for you to increase his poor income, but by such means as will be very grating for you to submit to: will your hands be capable of enduring the fatigues of a wash-tub, for your maintenance? Or, will following a camp suit your inclinations? Think well of the certain misery that must attend your making such a choice.

E

Look

Look round at the wives of all his fellow-foldiers, and mark their appearance at their homes, and in public. Is *their* abject condition to be coveted? do you see any thing desirable in poverty and rags? and, as to the man for whom you must endure all this, he may possibly indeed be possessed of honesty, and a desire to do his best for you, at least you may think so; but is it probable he will? For if he be wise and industrious, how came he to prefer a life so mean and contemptible? if he was bred to any trade, why did he desert it?

Be cautious of pushing yourself into ruin, and as I am not able to maintain you, and a young family, do not throw yourself upon the uncertain charity of *well-disposed* people; who are already vastly incumbered by the miserable. I hope you will not thus rashly increase the unhappy number of such, but will give due attention to what I have said; for I can have no view but that of discharging the duty of

Your loving Father.

L E T T E R. XVIII.

Agentleman to a lady, professing an aversion to the tedious forms of courtship.

Dear Madam,

I Remember that one of the antients, in describing a youth in love, says, he has neither wisdom enough to speak, nor to hold his tongue. If this be a just description, the sincerity of my passion will admit of no dispute: and whenever, in your company, I behave like a fool, forget not that you are answerable for my incapacity. Having made bold to declare thus much, I must presume to say, that a favourable reception of this will, I am certain, make me more worthy your notice; but your disdain would be what I believe myself incapable ever to surmount. To try by idle fallacies, and airy compliments, to prevail on your judgment, is a folly for any man to attempt who knows you. No, madam, your good sense and endowments have raised you far above the necessity of practising the mean artifices which prevail

vail upon the less deserving of your sex: you are not to be so lightly deceived; and if you were, give me leave to say, I should not think you deserving of the trouble that would attend such an attempt.

This, I must own, is no fashionable letter form one who, I am sure, loves up to the greatest hero of romance: but as I would hope, that the happiness I sue for, should be lasting, it is certainly most eligible to take no step to procure it but what will bear reflection; for I should be happy to see you mine, when we have both out-lived the taste for every thing that has not virtue and reason to support it. I am, madam, notwithstanding this unpolished address,

Your most respectful admirer, and obedient servant.

L E T T E R XIX.

To a friend, who had promised to lend a sum of money, to answer a critical exigence, and drove it off to the last.

Dear Sir,

YOU were so kind as to tell me, a fortnight ago, that you would lend me one hundred pounds on my bond, to answer a demand that my credit would be otherwise a sufferer by. And you were pleased to say, you would have me look no further, and that I should certainly have it in time. I have looked no further, Sir; and the day of payment approaching, you cannot imagine how my mind has suffered by being not *absolutely sure* of having the money to answer the demand. I hope, Sir, nothing has happen'd to make you alter your mind; for, at this short notice, I shall not know to whom to apply to raise it. In the utmost perturbation of mind, for fear of the worst, my credit being wholly at stake, I beg your answer, which I hope will be to the satisfaction of, Sir,

Your obliged humble servant.

LETTER. XX.

The answer, excusing the pain he had given his friend by his remissness.

Dear Sir,

I WILL attend you this afternoon with the money, which I had always great Pleasure in the Thought of supplying you with; and I am most heartily vexed with myself, for giving you the pain and uneasiness that must have attended a mind so punctual as yours, and in a case so critically circumstanced. But I hope you'll forgive me tho' I can hardly forgive myself. I am, Sir, as well on this, as on any other occasion in my power,

Your sincere friend and servant.

LETTER. XXI.

A sailor to his betrothed mistress.

My dear Peggy,

Barbados, Oct. 9.

IF you think of me half so often as I do of you, it will be every hour; for you are never out of my thoughts; and, when I am asleep, I constantly dream of my dear Peggy. I wear my half-bit of Gold always at my heart, ty'd to a blue ribband round my neck; for true blue, my dearest love, is the colour of colours to me. Where, my dearest, do you put your's? I hope you are careful of it: for it would be a bad omen to lose it.

I hope you hold in the same mind still, my dearest dear; for God will never bless you, if you break the vows you have made to me. As to your ever faithful Andrew, I would sooner have my heart torn from my breast, than it should harbour a wish for any other woman besides my Peggy. O my dearest love! you are the joy of my life! my thoughts are all of you; you are with me in all I do; and my hope and my wish are only to be your's. God send it may be so!

Our captain talks of sailing soon for *England*; and then, and then—my dearest *Peggy*!—O how I rejoice, how my heart beats with delight, that makes me I cannot tell how, when I think of arriving in *England*, and joining hands with my *Peggy*, as we have hearts before I hope! I am sure I speak for one.

John Arthur, in the good Ship *George*, Capt. *Plowsea*, which is returning to *England* (as I hope we shall soon), promises to deliver this into your own dear hand; and he will bring you, too, six bottles of citron-water, as a token of my love. It is fit for the finest ladies taste, it is so good, and it is what, they say ladies drink, when they can get it.

John says, he will have one sweet kiss of my dearest *Peggy*, for his care and pains. So let him, my best love; for I am not of a jealous temper. I have a better opinion of my *dearest*, than so.—But, oh! that I was in *his* place!—One kiss should not serve my turn, tho' I hope it may *his*!—Yet, if he takes two, I'll forgive him; one for me, and one for *himself*. For I love *John* dearly; and so you may well think. Well, what shall I say more?—Or, rather, what shall I say next? For I have an hundred things crowding in upon me, when I write to my dearest; and, alas! one has so few opportunities! But yet I must leave off; for I have written to the bottom of my paper. Love then to all friends, and duty to both our mothers, concludes me

Your faithful lover till death.

LETTER XXII.

Her answer.

Dear Andrew,

FOR so I may call you now we are *sure*; and so my mother says. This is to let you know, that nothing shall prevail upon me to alter my promise made to you, when we parted; with heavy hearts enough, that's true: and yet I had a little inkling given me, that Mr. *Plank's* son the carpenter would be glad to make love to me: but, do you think I would suffer it? no, indeed! for I doubt not your *loyalty* to me; and do you think I

will not be as *loyal* to you? — To be sure I will. *These sailors run such sad chances*, said one that you and I both know. *They may return, and they may not*. Well, I will trust in God for that, who has return'd safe to his friends, their dear *Andrew*, so many a time, and often. *They will have a mistress in every land they come to*, said they. All are not such naughty men, said I; and I'll trust *Andrew Trusty* all the world over. For why cannot *men* be as faithful as *women*, tro'? and for *me*, I am sure no love shall ever touch my heart but *yours*.

God send us a happy meeting! let who will speak against *sailors*; they are the glory and the safe-guard of the land. And what would have become of *old England* long ago but for *them*? I am sure the lazy good-for-nothing *land-lubbers* would never have protected us from our cruel foes. So sailors are, and ever shall be, esteemed by me; and, of *all* sailors, my dear *Andrew Trusty*. Believe this truth from

Your faithful, &c.

P. S. I had this letter writ in readiness to send you, as I had opportunity. And the captain's lady undertakes to send it with hers. That is very kind and condescending. Is it not?

A CONGRATULATORY LETTER.

S I R,

DO not admire that I am one of the last, who congratulate with you, your good fortune: the joy which I conceived was so extreme, that it could afford me no sooner the liberty to acquit myself. I know, the most of your friends have prevented me, but being their satisfaction is small, I do not wonder if their diligence be the greater. As for my part, my idleness increaseth my merit, since stay and protraction proceeded only from the excess of the gladness of;

S I R,

Your most humble servant;

TOM. JOYFUL.

ANSWER

A N S W E R.

S I R,

SINCE you take part in the good fortune, which has befallen me, you must also participate in the advantage of the new credit, which it has brought me into. This I advertise you of, to the end, that you let not any occasion slip, wherein you may procure a proof of my friendship, nor forget this advice, which I give you; for believe, I am impatient to have an opportunity of shewing you how much I am,

S I R,

Your friend and servant,

TIMOTHY GRATEFUL.

A LETTER of THANKS, &c.

S I R,

I Received the favour of your's with a kind of present; and know not indeed at this time any other way to shew my gratitude, than by my hearty thanks for the same. Every thing you do carries a charm with it, your manner of doing it is as agreeable as the thing done. In short, Sir, my heart is full, and would overflow in your praise, did I not stop, and subscribe myself

May 13th, }
1754. }

Your most obliged,

And obedient, humble servant,

THOMAS THANKFUL.

A LETTER requiring the payment of money, which serves as an acquittance.

S I R,

I Find, upon stating the accompt between you and me, that several considerable sums of money are due to me from you; wherefore having occasion for thirty pounds, I desire you to send it me by the bearer hereof, (or here name the carrier) and in so doing you will very much oblige me.

As to the payment thereof, this letter, and the bearer's acquittance, shall be your sufficient security and discharge for so much money. In witness whereof, I have hereunto set my hand, this 6th day of *May*, 1754.

JOHN TRADEWELL.

An ANSWER to the last letter.

S I R,

I Sent by the bearer (*or the carrier*) thirty pounds according to your desire, and have taken his receipt for it; but, because you know I send but for small parcels of goods at a time, therefore I desire you always for the future, when I send you money, that you mention in the acquittances the names of the goods for which you received the money, or at least I would have you to mention what money remains unpaid; for thro' want of such certain knowledge, some poor country tradesmen have found great loss, either by the master, or their apprentices receiving the money sent, and not mentioning for what goods. Pray take it not ill that I thus write, for I am satisfied of your honest dealing; but know not the servants you intrust to receive the money, I send in small parcels. I rest

Your friend and chapman,

JAMES PUNCTUAL.

A LETTER from a servant in his master's absence to one of his country customers.

Mr. Thomas Merchant,

London, Dec. 12. 1753.

S I R,

I Received your's, and for answer say, I am very sorry to hear that the goods have not answered your expectation; however, have placed them to the credit of your accompt, and returned others in their stead by *Robert Derham* the carrier. I know my master would willingly oblige you in any Thing in his power, and as his faithful servant I have herein done my utmost to give you satisfaction, who am

To Mr. Tho. Merchant, } *Your most humble servant,*
 clothier in *Hallifax.* } JOHN WINDSOR.

A LET-

A LETTER from a youth at school in Durham to his parents in London.

Durham, January 6. 1753.

Honoured father and mother,

I Received your kind letter of the 24th of November past, and also the several things therein mentioned, by the Newcastle waggon, for which I return you my most humble and hearty thanks, they coming very seasonably to the relief of my occasions. — I begin to make pretty good improvement in my learning now, (tho' at first it seemed a little irksome and hard) and I hope to gain the point at last for which you sent me hither. Pray accept of my most humble duty to yourselves, and give my kind love to my brothers and sisters, and to my old play-fellows and neighbours; this being all at present from,

Honoured parents,

Your dutiful son,

PETER WISE.

From an apprentice to his friends.

Honoured father and mother,

BY these I let you know, that by your good care and conduct I am well settled, and pleased with my station, and could not but in duty return you my hearty thanks in a grateful acknowledgment of your love and tender care of me: I will endeavour to go through my business chearfully; and having begun well, I hope I shall persevere to do so to the end, that I may be a comfort to you hereafter, and in some measure make a return of your love and kindness to me, who am,

Your most dutiful and obedient son and servant,

JEREMIAH CAREFUL.

A LET-

A LETTER of recommendation.

S I R,
THE bearer hereof, *James Roberts*, I send to you, as one whose honesty you may rely on, and my experience of his conduct and fidelity give me a certain kind of confidence in recommending him to you; but you know me, Sir, and I believe you cannot in the least think that I would recommend any one to you, if I had the least umbrage of suspicion or doubt concerning their probity.

I am, Sir,

Your real friend and humble servant,

JAMES GOODMAN.

To a country chapman.

Mr. James Tradewell,

S I R,

London, Dec. 8. 1753.

YOU and I have formerly had trading together, and it is not my fault that we do not continue so to do; for assure yourself, I have a great value and respect for you, and on that account none shall be more ready to oblige you in what I may; and pray let us once more re-assume our dealings together, and you shall find, that for any goods you have occasion for in my way, none shall use you more kindly than,

S I R,

Your real friend, and humble servant,

GEORGE PUNCTUAL.

A letter by way of a petition from a friend.

Honoured Sir,

I Am uncertain whether my late misfortunes have come to your knowledge; however, I most humbly presume on your good nature, being assured by sundry examples of your compassion, that you will think of, and take pity on the distressed; therefore, as an object truly deserving compassion, I most humbly implore and
 petition

petition you to consider the many losses and disappointments that I have met with in my unlucky and wayward fortune, which have reduced me to such necessitous circumstances, that I cannot possibly proceed in my affairs: you was pleased once to stile me your friend, and so I was indeed; and so I would certainly do now, and shew it by a signal proof of kindness, if our circumstances were changed, by standing between you and misfortune, and screening you from the malevolent and inauspicious influences of cross grained stars. I doubt not, Sir, but your generosity and goodness is as great; and I hope with all humility, you will be pleased to interpose your good offices, &c. between unlucky fortune, and,

S I R,

*Your very humble servant,
George Shipwreck.*

A LETTER to a friend, to desire him to endeavour to end a difference.

Loving cousin,

A*FTER my love to you, this is to let you know, that two of your friends G. B. and F. D. are going to law upon a trifling occasion. I pray come over and see to reconcile them, or send your advice how I may labour to do it, and I shall be very much obliged to you. I remain*

Your affectionate kinsman and humble servant.

G. T:

The ANSWER, with advice.

Dear friend,

W*ITH my unfeigned love to you, I received your letter, and it grieves me to hear that our friends should be for going to law, and not compell'd to it; for then much money is spent upon lawyers, to end their differences by jury-men, when two friends may do it better.*

But if one of the parties is for going to law, and the other not, then he that is against going to law is the most

most christian, and is not to be blam'd, tho' he use the law of the nation to defend himself; neither, indeed, can he avoid it, if his adversary seeks revenge, and so forces him to spend his money in his defence.

But you desiring my advice about reconciling those two friends, they having not yet feed lawyers, persuade the man that is for going to law, that two friends chosen by both parties may end their differences, or one person only.

And when they have nominated two to end it, then persuade the two parties to put into the hands of those Arbitrators, 5 *l.* or more a-piece, according to the value of the trespass. This agreed on, next,

Let the parties sign and seal general releases to each other; then the arbitrators must dispose of the money as they see good, to the party, that receiv'd the wrong, &c.

Thus differences among friends may be compos'd at a much cheaper and better rate than by trial at the assizes.

But yet 'tis best, when contending parties agree by themselves, as Christ commands, (*Mat.* xviii. 15.) and forgive trespasses, (*Mat.* iv. 12.)

Besides this, having general releases, it cuts off all former differences, and saves from divers expences, and from bonds of arbitration and awards, which, tho' they cost money, often prove of no effect.

Would to God the advice above, of reconciling men at difference, would take effect in general, then would peace flourish, &c.

*I remain your friend,
Jerem. Peaceable.*

A LETTER from a gentleman to gentlewoman, to beg pardon for an offence.

Madam,

TIS in vain to contend with my judge; and therefore, though I know my fault has been aggravated beyond what it could justly bear, yet I will rather submit myself to your sentence than go about to extenuate my crime: I am guilty enough that I have offend-
ed

ed you, tho' I never designed it; and when you have done yourself justice, by inflicting upon me what you think I merit for my offence, then will I plead my innocency, and let you know I always was so far from saying any thing that might reflect upon your fame, that in my opinion, not innocence itself is more unspotted, nor can unfully'd snow appear more white: 'tis true, I am guilty to give you ground to think I have offended; but my offence is my misfortune, rather than my fault. But, Madam, what if I appeal from your severer justice to your mercy? I know you are not inexorable, nor did you suck the breasts of wolves and tygers: and since there's so much sweetness in your eyes, there needs must be some pity in your heart, at least so far as to forgive a poor repenting criminal. And since you're such a bright idea of the author of all goodness, you cannot but, like him, delight in shewing mercy. I shall henceforth endeavour to be like *Cæsar's* wife, not only free from guilt, but from suspicion: and further, shall, to expiate my offence, remain

Your truly sorrowful,

And much afflicted humble servant,

Roger Begpardon.

The ANSWER to the foregoing letter.

S I R,

I Received your letter, and must let you know, that whatsoever reflects upon my fame, (which is far dearer to me than my life) tho' at the most remote distance, is what I cannot but think a fault, and therefore know not how you can be innocent; and, indeed, to plead your innocence, is to accuse me of injustice, in charging you with a crime: but, from what you write, I am inclined to believe, that in what you said, you designed no injury to me; and that it was a crime of inadvertance rather than of malice. And for that reason, upon your profession of repentance, I freely pardon you; but charity itself does not enjoin me to hug the man I pardon in my bosom: you must not expect therefore to be admitted to the former freedoms you enjoy'd,

F

(since

(since you have made so ill an use of 'em) till you have given some more substantial proofs of the sincerity of your repentance. And tho' I pardon this your first offence, yet if you should relapse into your former follies, you must expect a much severer treatment: for then I shall no more esteem myself, as I now do,

Your reconciled friend to serve you,
Sarah Forgivewell.

A LETTER to a father, on his neglect of his childrens education.

Dear Sir,

I Am under a concern to see such a remissness, as every body takes notice of, in the education of your children. They are brought up, 'tis true, to little offices in your business, which keep them active, and may make them in some degree of *present*, tho' *poor* use to you; but I am sorry to say, of *none* to *themselves*, with regard to their *future prospects*, which is what a worthy parent always has in view.

There is a proper time for every thing; and if children are not early initiated into their duty, and those parts of learning which are proper to their particular years, they must necessarily be discouraged, and set behind every one of their school-fellows, though much younger than themselves; and you know not, Sir, what a laudable emulation you by this means destroy, than which nothing is of greater force to children, to induce them to attend to their books; nor what a disgrace you involve them in with respect to children among children, for the biggest and eldest to be so much outdone by the least and youngest:

Nor is the consequence of this defect confin'd to the school-age, as I may call it; for as they grow up, they will be look'd upon in an equally discouraging and disadvantageous light, by all who converse with them: which must of course throw them into the company of the dregs of mankind; for how will they be able to converse or correspond with those whose acquaintance it is most worth their while to cultivate? And indeed they will probably be so conscious of their unsuitness to

bear

hear a part in worthy conversation, that, to keep themselves in countenance, they will, of their own accord, shun the *better* company, and associate with the *worst*: and what *may* be the consequence of this, a wise man, and a good father, would tremble to think of, especially when he has to reflect upon himself as the *cause* of it, let it be what it will.

Then, Sir, it is to be consider'd, that without a tolerable education they can be only fit for mean and sordid employments. Hear what the wise man says to this very purpose: "How can he get wisdom, that holdeth the *plough*, and that glorieth in the *goad*, that driveth *oxen*, and is occupied in their labours, and whose talk is of *bullocks*? He giveth his mind to make *furrows*, and is diligent to give the *kine* fodder. So every *carpenter* and *workmaster*, that laboureth night and day——The *smith* also sitteth by the anvil, and considering the iron-work, the vapour of the fire wasteth his flesh——The *noise* of the *hammer* and the *anvil* is ever in his ears——So doth the *potter* sitting at his work, and turning the wheel about with his feet——He fashioneth the clay with his arm, and boweth down his strength before his feet." These, as he observes, are useful in their way; but their minds being *wholly* engrossed by their labours, "they shall not be sought for in *public council*, nor sit *high* in the *congregation*——they cannot declare *justice* and *judgment*, and they shall not be found where *parables* are spoken." That is, they shall be confined to the drudgery of their own *servile* station, and will be intitled neither to *honour* nor *respect*, as they might have been, had they had an education to qualify them for more respectable businesses. And you will consider, Sir, in a closer light, as to us who live in the *present age*, and in this part of *Europe*, that there is hardly a *creditable* or *profitable* employment in *Britain*, where a tolerable knowledge of *accounts*, and *penmanship*, in particular, is not required. Consider also, what opportunities they may lose by this neglect of their education, in case they should fail in the business they are put to, of getting comfortable and genteel bread in some merchant's counting-house, or in some one of the several

offices about London; as book-keeping, clerks, accountants, &c.

And with regard more immediately to *yourself*, how can you expect, when they know you could do better for them, but that their behaviour to *you* will be of a piece with the rest? For if they are not polished, by learning, but are left to a kind of *instinct* rather, is it to be expected that they should behave to *you* and their *mother*, with that sense of their obligations which learning inculcates? Nor, indeed, will they *have* those obligations to you, which other children have to *their* parents, who take care to give them opportunities of improvement, which are denied to yours. Consider, dear Sir, what a contemptible character, even among the sordid vulgar, that of an *illiterate fellow* is; and what respect, on the contrary, a *man of letters* is treated with, by his *equals*, as well as *inferiors*: and when you lay all these plain reasons and observations together, I make no doubt but you will endeavour to retrieve lost time, and be advised in this material point (which I can have no interest in) by

Your sincere friend and servant.

A LETTER from a young maiden, abandon'd by her lover for the sake of a greater fortune.

Mr. Falseheart,

I Must take my pen and write, tho' perhaps you will only scoff at me for so doing; but when I have said what I have to say, then I shall have eased my mind, and will endeavour to forget you for ever. I have had so many cautions given me against the false hearts of men, and was so often told how they will vow and forswear themselves, that I ought to have been on my guard, that's true: and indeed, so *I was* a great while: you know it well. But you courted me so long, vowed so earnestly, and seemed so much in love with me, that it was first *pity* in me, that made me listen to you; and, oh! this *nasty pity*, how soon did it bring—— But I won't say *love* neither. I thought, if all the young men in the world besides proved false, yet it was impossible

you should. Ah! poor silly creature that I was, to think, tho' every body flattered me with being slightly enough, I could hold a heart so sordidly bent on *interest*, as I always saw *yours* to be! But that, thought I, though 'tis a meanness *I don't like*, yet will it be a security of his making a frugal husband in an age so fruitful of *spendthrifts*.

But at length it has proved, that you can prefer *Betty Mannypenny*, and leave *poor me*, only because she has a greater portion than I have.

I say nothing against *Betty*. I wish *her* well. Indeed I do. And I wish *you* no harm neither. But as you knew *Betty* before, why could you not have made to yourself a merit with *her*, without going so far with *me*? What need you have so often begged and prayed, sighed and vowed (never leaving me, day nor night) till you had got me foolishly to *believe* and *pity* you? And so, after your courtship to me was made a *town-talk*, then you could leave me to be laugh'd at by *every one* *I slighted for you*? Was this just, was this well done, think you?

Here I cannot go out of doors but I have some one or other *simpering* and *sneering* at me; and I have had two *willow-garlands* sent me; so I have—— But what poor stuff, in some of my *own sex* too, is this, to laugh at, and deride *me* for *your* baseness? I can call my heart to witness to my virtue in thought, in word, and in deed; and must I be ridiculed for a *false one*, who gives himself airs at *my* expence, and at the expence of his own truth and honour? Indeed you cannot say the least ill of me, that's my comfort. I defy the world to say any thing to blast my character: why then should I suffer, in the *world's eye*, for *your* baseness?

I seek not to move you to return to the fidelity you have vow'd; for by this time, mayhap, you'd be as base to *Betty* as you have been to *me*, if you did; and I wish *her* no *willow-garlands*, I'll assure you. But yet, let me desire you to speak of me with decency. That is no more than I deserve, well you know. Don't (to brave thro' the perfidy you have been guilty of) mention me with such sneers, as, I hear, you have done to several; and pray call me none of *your poor dear girls*! And, *I hope she won't take it to heart, poor thing!*—— with

that insolence that so little becomes you, and I have so little deserved. I thought to have appealed to your *conscience*, on what has passed between us, when I began. I thought to have put the matter *home* to you! But I have run out into this length, and now don't think it *worth while* to write much more: for what is *conscience* to a man who could *vow* as you have done, and *act* as you have done?

Go then, Mr. *Falsheart*, naughty man as you are! I will try to forget you for ever. Rejoice in the smiles of your *Betty Mannypenny*, and glad your heart with the possession of two or three hundred pounds more than I have; and see what you'll be the *richer* or *happier* a few years hence. I wish no harm to you. Your *conscience* will be a greater trouble to you than I wish it to be, if you're capable of *reflecting*. And for *your sake*, I will henceforth set myself up to be an adviser of all my sex, never to give ear to a man, unless they can be sure that his *interest* will be a *security* for his *pretended affection* to them. I am, tho' greatly *injured* and *deceived*, naughty Mr. *Falsheart*,

Your well wisher.

A LETTER from a gentleman to his mistress, who seeing no hopes of success, respectfully withdraws his suit.

MADAM,

I Make no doubt but this will be the welcomest letter that you ever received from me; for it comes to assure you, that it is the last trouble you will ever have from me. Nor should I have so long withheld from you this satisfaction, had not the hope your brother gave me, that in time I might meet with a happier fate, made me willing to try every way to obtain your favour. But I see, all the hopes given me by his kind consideration for me, and those that my own presumption have made me entertain, are all in vain: and I will therefore rid you of so troublesome an importuner, having nothing to offer now but my ardent wishes for your happiness.

happiness; and these, Madam, I will pursue you with to my life's latest date.

May you, whenever you shall change your condition, meet with a heart as passionately, and as sincerely devoted to you as mine! and may you be happy for many, very many years, in the man you can honour with your love: for, give me leave to say, Madam, that in *this*, my end will be in part answered, because it was most sincerely *your* happiness I had in view, as well as *my own*, when I presumptuously hoped, by *contributing* to the *one*, to *secure* the *other*. I am, Madam, with the highest veneration,

Your most obedient humble servant.

A LETTER from a lady to a gentleman of superior fortune, who, after a long address in an honourable way, proposes to live with her as a gallant.

S I R,

AFTER many unaccountable hesitations, and conceal'd meanings, that your mind seem'd of late big with, but hardly knew how to express, you have, at last, spoken out all your mind; and I know what I am to trust to! I have that disdain of your proposal that an honest mind ought to have. But I wish, for my own sake (and I will say, for *yours* too, because your honour is concerned in it so deeply) that I had had, at my first acquaintance with you, such an instance of your *plain-dealing*, or, rather, *baseness*: then I should have had no regret in letting you know how much I scorn'd the *proposer* and the *proposal*: tho' I hope, as it is, a little time and reflection will make me, for the sake of the *latter*, abhor the *former*.

However, Sir, I must say, you are very cruel to use me thus, after you had, by all the alluring professions of an honourable love, inspired me with a grateful return, and brought me to the freedom of owning it—— Nor yet will I be an hypocrite, or deny my honest passion; for that would be to lessen your guilt. God is my witness, I lov'd you beyond all your sex; yet I lov'd you *virtuously*; I loved you because I thought you *virtuous*.

virtuous. And now, tho' it may take some time, and too much regret, to get over; yet do I hope, your behaviour will enable me to conquer my fond folly.

Ungenerous man! to take advantage of your superior fortune to insult me thus, when you had gained my affections! What, tho' I am not blessed with a worldly circumstance equal to what you might expect in a *wife*, can you think my mind so base as to submit to be yours on unworthy terms? Go, unworthy man, and make your court to Miss *Bankstock*, as you seem to threaten. She has a fortune equal to your own, and may you be happy together! I should have been so, had I never known you. I never deceived you: you knew my scanty fortune, and yet pretended to prefer me to all my sex.

On me you might have laid the highest obligation, by raising me to a condition I was humble enough to think above me; and I should have been, on that account, all gratitude, all duty, all acknowledgment. On Miss *Bankstock* you will confer none; her fortune will quit scores with yours, and you must both, in your union, be strangers to the inexpressible pleasure of *receiving* or *conferring* of benefits: but this is a pleasure which none but generous minds can taste. That yours is not so, witness your detested proposal, after such solemn professions of faithful and honourable love. And I have one consolation, tho' a consolation I did not wish for, that I am under no obligation, but the contrary, to such a man: and am as much your superior, as the person who would do no wrong, is to one that will do nothing else. Send me, however, my letters, that I may be assured my fond credulity will not be the subject of fresh insult, and that perhaps to the *person* that shall be what you made *me* expect *I* should be. I will send you all yours, the last only excepted; which, as it may assist me to conquer my fond folly for you, I hope you'll allow me to keep, tho' it is the abhorrence of my soul—May you be happier than you have made *me*!—is the last prayer you will have from

Your too credulous well-wisher.

A L E T.

*A LETTER from a father to a daughter in service,
on hearing of her master's attempting her virtue.*

My dear daughter,

I Understand, with great grief of heart, that your master has made some attempts on your virtue, and yet that you stay with him. God grant that you have not already yielded to his base desires! For when once a person has so far forgotten what belongs to himself, or his character, as to make such an attempt, the very continuance with him, and in his power, and under the same roof, is an encouragement to him to prosecute his designs. And if he carries it better, and more civil at present, it is only the more certainly to undo you when he attacks you next. Consider, my dear child, your reputation is all you have to trust to. And if you have not already, which God forbid! yielded to him, leave it not to the hazard of another temptation; but come away directly (as you ought to have done on your own motion) at the command of

Your grieved and indulgent father.

The daughter's ANSWER.

Honoured Sir,

I Received your letter yesterday, and am sorry I stayed a moment in my master's house after his vile attempt. But he was so full of his promises of never offering the like again, that I hoped I might believe him; nor have I yet seen any thing to the contrary: but am so much convinced, that I ought to have done as you say, that I have this day left the house; and hope to be with you soon after you will have received this letter. I am

Your dutiful daughter.

PRECEDENTS in LAW and BUSINESS, that all young men ought to know, and be acquainted with.

SUPERSCRPTIONS for LETTERS.

TO the king; or, To the king's most excellent majesty.

To the queen; or, To the queen's most excellent majesty.

To the prince; or, To his royal highness. To the princess; or, To her royal highness.

And in case of the lords spiritual. *viz.* To his grace the lord archbishop of *Canterbury*; To the most reverend father in God, &c. The same to the archbishop of *York*. If to the other bishops, To the right reverend father in God, *Archibald* lord bishop of, &c. And to the inferior clergy; To the reverend doctor, &c. To the reverend Mr. &c.

To write to temporal lords, *viz.*

To his grace the duke of _____

To the right honourable the marquis of _____

To the right honourable the earl of _____

To the right honourable the lord viscount _____

To the right honourable the lord _____

All the sons of the nobility, tho' not the immediate heirs, are to be dignified with the title of honourable, as their due by birth-right. And to a knight and baronet by virtue of his patent, the title of honourable and right worshipful is given. As likewise the former to a knight, and worshipful to an esquire.

Every privy counsellor, tho' not a nobleman, is stiled right honourable: All ambassadors have the stile of excellency; as likewise hath the lord lieutenant of *Ireland*, and the captain general of his majesty's forces when in being; nor has the lord mayor of *London*, during his mayoralty, a less title than right honourable; and the sheriffs, during that office, are stiled right worshipful;

shipful; nor does any thing less than the title of esquire extend to the mayors of any corporation during their office.

DIRECTIONS for the beginning of letters.

TO the king; Sir, or, May it please your majesty.
To the queen; Madam, or, May it please your majesty.

To the prince; Sir, or, May it please your royal highness.

To the princess; Madam, or, May it please your royal highness.

To a duke; My lord, or, May it please your grace.

To a dutchess; Madam, or, May it please your grace.

To a marquis; My lord, or, may it please your lordship.

To a marchioness; Madam, or, May it please your ladyship.

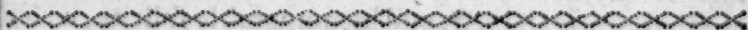
To an earl, viscount, or baron; Right honourable, or, May it please your lordship. *In viscount or viscountess found not the s in the first syllable.*

To a countess, viscountess, or baroness; Madam, or, Right honourable, or, May it please your ladyship.

To a knight; Sir, or, Right worshipful; and to his lady; Madam, or, May it please your ladyship.

To a mayor, justice of peace, esquire, &c. Sir, or, May it please your worship.

At subscribing your name end with the same title you began with. As, *My lord, Your lordship's, &c.*



Of WILLS and TESTAMENTS.

A WILL, according to its common acceptation, is the declaration of a person's mind or intent, in relation to what he would have done after his death. The common law calls that a will, whereby lands or tenements are devised; but when it concerns only chattels, viz. *Moveables, or what is not inheritable*, it is called a testament; where lands are given by will, it is termed a devise;

devise; and where goods and chattels, commonly termed a personal estate, are bequeathed, it is called a legacy.

Devises of lands, &c. must be in writing, signed by the devisor or person giving, generally called the *testator*, or some other person by his express direction, in the presence of three credible witnesses. If a personal estate of above the value of thirty pounds be bequeathed by word of mouth, which the law calls a nuncupative will, it must be likewise done in the presence of three witnesses.

FORM of a WILL.

IN the name of God, *Amen*. I, *A. B.* of, &c. being, thro' the abundant mercy and goodness of God, tho' weak in body, yet of a sound and perfect understanding and memory, do constitute this my last will and testament, and desire it may be received by all as such: *imprimis*, I most humbly bequeath my soul to God, my maker, beseeching his most gracious acceptance of it, thro' the all-sufficient merits and mediation of my most compassionate Redeemer, Jesus Christ, who gave himself to be an atonement for my sins, and is able to save, to the uttermost, all that come unto God by him; seeing he ever liveth to make intercession for them, and who, I trust, will not reject me, a returning penitent sinner, when I come to him for mercy; in this hope and confidence, I render up my soul with comfort, humbly beseeching the most blessed and glorious trinity, one God most holy, most merciful and gracious, to prepare me for the time of my dissolution, and then to take me to himself into that peace and rest, and incomparable felicity, which he has prepared for all that love and fear his holy name, *Amen*, blessed be God. *Imprimis*, I give my body to the earth, from whence it was taken, in full assurance of its resurrection from thence at the last day: as for my burial, I desire it may be decent, without pomp, or state, at the discretion of my dear wife, and my executors hereafter named, who, I doubt not, will manage it with all requisite prudence. As to my worldly estate, I will and positively order, That all my debts be paid. *Item*, I give to my dear and loving wife, for term
of

of life, this house wherein I now dwell, with all the furniture, and the lands and tenements that lie about it; and after her death, to my only son *G.* and his heirs and assigns for ever; to whom I leave also, from the time of my death, my other two estates situate in the parish of *T.* he paying to each of his sisters, *D.* and *F.* 5000*l.* And if he die before them, and without issue, then his land (all but the value of 5000*l.* which, I freely empower him to dispose of as he shall think fit) shall descend, and belong equally to those my two daughters. My poor debtors, who owe me some small matters, which because they are in low condition, and not well able to pay them, I freely remit them all, forgiving such my debts, as I desire God should forgive my debts for Christ's sake. I give 60*l.* to be distributed according to the discretion of my executors, among such of my neighbours of this parish, as they shall apprehend most to want such assistance, but who do not at present receive alms, nor have any allowance from the parish. I give 30*l.* towards that good work for teaching poor children to read, and to say their catechism, in charity schools. The small remainder of my estate I give to my very good friends, and dear and kind relations, *G. R.* and *L. O.* to be divided equally between them: and do constitute them executors of this my last will and testament, and trustees for my wife and children. In witness whereof, I have hereunto set my hand and seal, the third day of *June*, in the year of our Lord, 1754.

Witnesses, *T. B.*

A. B. (L. S.) here I take off my seal, and do declare this to be my last will and testament:

R. T.

R. W.

Another Will.

IN the name of God, Amen. I, *A. B.* of &c. being in perfect health, (praised be God) do make this my last will and testament as followeth. *Imprimis*, I give to my daughter *L. M.* 20 pounds of, &c. *Item*, I give to my daughter, *N. O.* 50 pounds of like lawful money, and the box in the room where I lie, mark'd (*P. Q.*) and all the linen therein, with some other goods, and

G

the

the rest and residue of my goods and chattels, and personal estate, after payment of my debts, legacies, and funeral expences; and unto my son *R. S.* whom I make sole executor of this my last will and testament, I give, demise, and bequeath to him and his heirs, all, and every my messuages, lands, tenements, and hereditaments whatsoever and wheresoever, which I also charge with the payment of my said legacies. In witness whereof, I have hereunto set my hand and seal, the 19th day of *July*, and in the year of our Lord, 1754.

Sealed, published, and declared by the above named *A. B.* for and as his last will and testament, in the presence of us, *A. B. C. D. E. F.*

Observations concerning wills and testaments.

THE party who signs, and seals a will, is to do it in the presence of three witnesses, who are to set their hands to it, (not under three) and it is not much matter whether the witnesses hear the will read or no, so as they hear the party say he acknowledgeth that writing to be his will, to which he sets his hand and seal; for if they did hear it read, it cannot be supposed that they can remember the contents thereof. A man above fourteen years of age may make a will of his goods; and a woman above twelve: but neither can will their lands until twenty one years.

If a man dies without a will, and leaves both free-lands and goods, his wife will have the third part of the profits of the land, during her life, and one third part the goods for ever; and the next akin to the husband the other two third parts. But he that makes a will, and leaves his wife a certain sum to be paid her yearly, during her life, by his executor should also give her some of his moveable Goods.

If a man dies without a will signed, and seal'd, leaving many children, the eldest son claims all the land; but, if he leaves daughters only, they will be coheirs to all free-land.

Copy-hold land is not given by will, but pass'd by surrender in court.

To

To will lands to *E. F.* for ever; or to *G. H.* and his assigns this is but for life; but I give and demise unto *E. F.* his heirs and assigns for ever, so *G. H.* may sell it.

The word executor, is the name given to him that is to see the will perform'd; but if to a woman, she is call'd in the will executrix.

See your house in order while you are in health.

For a (will) testament is of force after men are dead, Heb. ix. 17. but not before.

For if a man hath seal'd his will, and deliver'd it to a friend to keep, he may make another, which makes the other will void.

The Form of a Letter of Attorney, to execute a particular Business.

K NOW all men by these presents, that I, *A. B.* of *C.* in the county of *D.* yeoman, for divers good causes and considerations, me hereunto moving, have made, ordain'd, constituted, and appointed, and by these presents, do make, ordain, constitute, and appoint my trusty friend *I. K.* of *M.* gent. my true and lawful attorney, for me, in my name, and to my use, to ask, demand, recover and receive of, and from *B. G.* of, &c. the sum of, &c. giving, and by these presents, granting to my said attorney, my sole and full power, and authority, to take, pursue, and follow such legal courses for the recovery, receiving, and obtaining of the same, as I myself might, or could do, were I personally present; and upon the receipt of the same, acquittances, or other sufficient discharges for me, and in my name, to make, sign, seal and deliver: as also one or more attorney or attorneys under him to substitute and appoint, and again at his pleasure to revoke; and farther to do, perform and finish for me, and in my name, all and singular thing or things, which shall or may be necessary, touching and concerning the premises, as fully, thoroughly, and entirely, as I the said *A. B.* in my own person might, or could do, in or about the same: ratifying, allowing, and confirming whatsoever my said attorney shall lawfully do, or cause to be done, in and about the

execution of the premises, by virtue of these presents. In witness whereof, I have hereunto set my hand and seal, the 12th day of *September*, in the 28th year of the reign of our sovereign Lord *GEORGE II.* by the grace of God, King of *Great Britian, &c.* and in the year of our Lord God, 1754.

The Form of a Revocation of a Letter of Attorney.

K NOW all men by these presents, that whereas I *A. B.* of *U.* in the county of *C.* yeoman, upon the trust and confidence which I had in *C. D.* of, &c. gent. by letter of attorney under my hand and seal, bearing date, &c. did make, ordain, constitute, and appoint the said *C. D.* my lawful attorney, for me, and in my name, and to my use, to ask, demand, recover and receive, of and from *F. G.* of, &c. bookseller, the sum of, &c. as thereby more at large may appear: now know ye, that I the said *A. B.* for divers good causes and considerations me hereunto moving, have and by these presents do revoke, disannul and make void the said letter of attorney, and all power and authority, therein to him the said *C. D.* given. In witness, &c.

The Form of an Indenture for an Apprentice.

T HIS indenture witnesseth, that *A. B.* Son of *C. D.* &c. doth put himself apprentice, to *E. F.* shoe-maker, to learn his art or mystery, and with him after the manner of an apprentice to serve from the day of the date hereof for and during the term of seven years next ensuing; during all which term, the said apprentice, his said master faithfully shall serve, his secrets keep, and all his lawful commands every where gladly do; he shall do no damage to his said master, nor see it to be done by others, without letting or giving notice thereof to his said master: he shall not waste his master's goods, nor lend them unlawfully to any. He shall not commit fornication, nor contract matrimony during the the said term; he shall not play at cards, dice, or any other unlawful game, whereby his master may be damaged, with his own goods, nor the goods of others;

he shall not absent himself day nor night from his said master's service unlawfully; nor haunt ale-houses, taverns, or play-houses; but in all things behave himself as a faithful apprentice, in the trade or mystery he now followeth; and the said master shall procure and provide for him sufficient meat, drink, apparel, lodging, washing and all other necessities, during the said term. And for the true performance of all and every the said covenants and agreements, either of the said parties bindeth himself unto the other firmly by these presents. In witness whereof, they have interchangeably set their hands and seals hereunto, this twentieth Day of September. In the twenty eighth year of the reign of our sovereign Lord GEORGE the II. King of Great Britain, France and Ireland, &c. and in the year of our Lord, 1754.

A letter of Attorney from a Seaman.

KNOW all men by these presents, That I, *A. B.* mariner, now belonging to his majesty's ship the, *Ann*, for divers good causes and considerations me hereunto moving, have, and by these presents do make, ordain, constitute and appoint my trusty friend, *H. I.* citizen and baker of *Bristol*, my true and lawful attorney for me, and in my name, and for my use, to ask, demand, and receive of and from the right honourable the treasurer, or pay-master of his majesty's navy, and commissioners for prize-money, and whom else it may concern; as well all such wages, and pay, bounty-money, prize-money, and all other sum and sums of money whatsoever, as now are, and which hereafter shall or may be due or payable unto me; also all such pensions, salaries, smart-money, and all other monies and things whatsoever, which now, or at any time hereafter is, or shall be due to me for my service, or otherwise in any of his majesty ship or ships, frigates, or vessels: giving and hereby granting unto my said attorney full and whole power, to take, pursue, and follow such legal ways and courses for the recovery, obtaining, and discharging the said sum and sums of money, or any of them, as I myself might, or could do, were I personally present. And I do hereby ratify, allow, and confirm all and

whatsoever my said attorney shall lawfully do, or cause to be done, in and about the execution of the premises, by virtue of these presents. In witness, &c.

A BOND.

K NOW all men by these presents, That I (*Robert Scott*, in the county of *Durham*, merchant,) am held, and firmly bound unto (*James Syms*, of *Doncaster*, in the county of *York*, Esq;) in the sum of (*Two hundred*) pounds of good and lawful money of *Great Britain*, to be paid to the said (*James Syms*) his heirs, executors, administrators, or assigns: to which payment, well and truly to be made, I bind myself, my heirs, executors, administrators, and assigns, firmly by these presents. Sealed with my seal. Dated the (*first day of June*) in the (*27th*) year of the reign of our sovereign Lord (*GEORGE the second*) by the grace of God, King of *Great Britain, France, and Ireland*, defender of the faith, and in the year of our Lord God, (*One thousand seven hundred and fifty four.*)

The CONDITION.

THE condition of this obligation is such, that if the above bounden (*Robert Scott*) his heirs, executors, or administrators, do well and truly pay, or cause to be paid, unto the above mentioned (*James Syms*) his executors, administrators, or assigns, the full sum of (*One hundred pounds*) with lawful interest for the same, of good and lawful money of *Great Britain*, on the (*first day of January*) next ensuing the date hereof: then this obligation to be void, or else to remain in full force.

Seal'd and deliver'd (being
first legally stamp'd,) in
presence of,

F. G.

H. I

Robert Dum.

☞ When a Bond is given in consideration of the value received, the bond is always to be made for double the value, in the condition.

What is to be varied, and made agreeable to the circumstances before you, is in those words inserted between () and in a different character.

A condition to stand to the award of arbitrators.

THE condition of this obligation is such, That if the above bounden (*James Sly* of *Newcastle*, merchant) his heirs, executors, and administrators, and every of them, do and shall in all things, well and truly stand to, obey, abide by, perform, fulfil, and keep the award, order, arbitrament, final end and determination of (*Andrew Mills* and *James Mills*, of *Bristol*, Merchants) arbitrators indifferently named, elected, and chosen, as well on the part and behalf of the above bounden (*James Sly*) as of the abovenamed (*James Syme*) to arbitrate, award, order, judge, and determine of and concerning all manner of actions, causes and causes of actions, suits, bills, bonds, specialities, judgments, executions, extents, accounts, debts, dues, sum and sums of money, controversies, trespasses, damages, and demands whatsoever, at any time or times heretofore had, made, moved, brought, commenced, sued, prosecuted, done, suffered, committed, or depending by or between the said parties, so as the award be made and given up in writing, under their hands and seals ready to be deliver'd to the said parties on or before the () next ensuing the date above mentioned:) but if the said arbitrators do not make such an award, of and concerning the premises, by the time aforesaid; that then, if the said (*James Sly*) his heirs, executors and administrators, for his and their parts and behalf, do in all things well and truly stand to, obey, abide, perform, fulfil, and keep the award, order, arbitrament, umpirage, final end and determination of (*John Jack*, of *Lincoln*, Esq;) umpire indifferently chosen between the two parties, to end the said matter and differences, so as the said umpire do make his award and umpirage, of and concerning the premises, and deliver the same in writing under his hand and seal, to the said parties, on or before the (day of) next ensuing the date aforesaid; then this obligation to be void, or else to remain in full force.

Seal'd and deliver'd, (being legally stamp'd,) in presence of, &c.) *James Sly*, (L. S.)

Note,

Note, Both the parties are in this case to be mutually bound, *mutatis, mutandis*; and if there be no umpire admitted of, the latter part of the condition, beginning (*But if the said arbitrators*) is to be omitted.

The form of an umpirage of award.

TO all people, to whom this present writing shall come: I (*John Jack* of *Lincoln*, Esq;) umpire indifferently chosen between (*James Slight*, and *John Fox* of *London*, merchants) send greeting: Now know ye, that I the said *John Jack*, having deliberately heard, considered, and understood the griefs, allegations, and proofs of both the said parties, and being willing, as much as in me lieth, to set the said parties at unity and good accord, do by these presents, arbitrate, award, order, deem, decree and judge, that the said (*James Slight*) his executors, administrators, or assigns, do, and shall well and truly pay, or cause to be paid unto the said (*John Fox*) his executors, administrators, or assigns, the full sum of () of lawful money of *Great Britain*, on the (day of) next ensuing the date of these presents; and that upon payment thereof, the said *James Slight* and *John Fox* shall, at their own proper costs and charges, seal, subscribe, and as their several acts and deeds, deliver each to the other, a general release in writing, of all matters, actions, suits, causes of actions, bonds, bills, covenants, controversies, and demands whatsoever, from the beginning of the world to the (*first day of July last past*) and in the (*twenty eighth*) year of our sovereign lord (*GEORGE II.*) King of *Great Britain*, &c. In witness whereof I have hereunto set my hand and seal, the (*14th day of July, 1753.*)

Seal'd and deliver'd, (being duly stamp'd,) in presence of, &c.

John Jack. (L. S.)

A letter of licence to a debtor.

TO all people, to whom this present writing shall come: we whose names are here under subscribed, and seals affix'd, creditors of (*D. F. of Bristol*, merchant)

chant) send greeting. Whereas the said (*D. F.*) on the day of the date of these presents, is indebted unto us severally, in divers considerable sums of money, which at present he is not able to satisfy unto us, without respite, and time to be given unto him for the payment thereof: *Know ye therefore*, That we the said creditors, for divers good causes and considerations, us thereunto moving, have given and granted, and by these presents, do give and grant unto the said (*D. F.*) our sure and safe conduct, and free license, that he the said (*D. F.*) shall, and may safely come and go, and resort unto us, and every one of us, his said creditors, to compound and take order with us, and every one of us for all and every of our said debts, and to go about any other business to any other person or persons whatsoever, without any trouble, suit, arrest, attachment, or other molestation to be offered, or done unto him, the said (*D. F.*) his wares, goods, monies, or other merchandizes whatsoever, by us, or any of us, or by the heirs, executors, administrators, partners, or assigns of us, or any of us, or by our, or any of our means and procurement, to be sought or procured to be done, from the day of the date hereof, unto the full end and term of (*one whole year*) next ensuing. And we the said creditors, whose names are here underwritten, do hereby covenant and grant, and every one of us for his own part, his executors and administrators covenanteth and granteth, to and with the said (*D. F.*) that if any trouble, wrong, damage, or injury shall be done unto him the said (*D. F.*) either in his body, goods, or chattels, or any of them, within the said term of (*one year*) next coming after the date hereof, by us, or any of us, his said creditors, or by any other person or persons, by or through the procurement, consent, or knowledge of us, or any of us, contrary to the true intent and meaning of this our present writing of safe conduct, that then the said (*D. F.*) by virtue of these presents, shall be discharged and acquitted for ever, towards and against him and them, of us, his and our heirs, executors, administrators, partners, or assigns, and every one of them, by whom, and by whose means he shall be arrested, troubled and attached, or damnify'd, of all manner of actions, suits, quarrels, debts, and demands,

mands, either in law or equity, from the beginning of the world, to the day of the date hereof: in witness whereof, we have hereunto set our hands and seals the (fourth day of July,) Anno Domini, 1754.

Seal'd and deliver'd, (be-	A. B.	(L. S.)
ing first duly stamp'd,)	G. D.	(L. S.)
in presence of, &c.	E. F.	(L. S.)

A Bill of Sale.

K NOW all persons, whom it may concern, That I (John Trader of Kendal, in the county of Westmoreland, weaver) for and in consideration of the sum of (One hundred pounds) of lawful money of Great Britain, to me in hand paid, by (Daniel Dike of London, Esq;) the receipt whereof I do hereby acknowledge, have bargain'd, sold and delivered, and by these presents, according to the due form of law, do bargain, sell and deliver unto the said (Daniel Dike) four pieces of Kendal cotton, one hundred pairs mens hose, fifty womens Do. fifteen boys Do. sealed up with my seal.) To have and to hold the said bargain'd premises, unto the said (Daniel Dike) his executors, administrators and assigns for ever. And I the said (John Trader) for myself, my executors and administrators, the said bargain'd premises unto the said (Daniel Dike) his executors, administrators and assigns, against all persons, shall and will warrant, and for ever defend, by these presents: [If the bargain'd premises be redeemable, by a limited time, a proviso of this nature is added.] Provided nevertheless, that if I the said (John Trader) my executors, administrators or assigns, or any of us, do and shall well and truly pay, or cause to be paid unto the said (Daniel Dike) his executors, administrators, or assigns, the sum of (One hundred and three pounds, as principal and interest, lawful money of Great Britain, on the thirtieth of October, next ensuing the date hereof) for redemption of the bargain'd premises; then this present bill of sale shall be void, and of none effect: but if default be made in the payment of the said (One hundred and three pounds,) in part, or in the whole, contrary to the manner and form aforesaid, that then it shall remain and be in full force and virtue:

virtue: in witness whereof, I have hereunto set my hand and seal, the (*twenty ninth day of June,*) in the year of our Lord, (1754.)

Seal'd and deliver'd, &c. *John Trader.* (L. S.)

A general Release.

KNOW all men by these presents, That I (*Thomas Stivens of London, grocer,*) have remitted, released, and for ever quitted claim, and by these presents, do for me, my heirs, executors and administrators, remise, release, and for ever quit claim, unto (*Jeremiah Bucks, citizen and mercer of London,*) his heirs, executors and administrators, all and all manner of actions, cause and causes of actions, suits, bills, bonds, writings obligatory, debts, dues, duties, accompts, sum and sums of money, judgments, executions, extents, quarrels, controversies, trespasses, damages and demands whatsoever, both in law and equity, or otherwise howsoever, which against the said (*Jeremiah Bucks*) I ever had, now have, and which I, my heirs, executors and administrators, shall or may have, claim, challenge or demand, for or by reason or means of any matter, cause or thing, from the beginning of the world, to the day of the date of these presents: in witness whereof, I have hereunto set my hand and seal, the (*twelfth day of July*) and in the year of our Lord (1754.)

Sign'd, seal'd and deliver'd (before first legally stamp'd,) &c. *Thos. Stivens.* (L. S.)

Of Wives, Children, and Servants.

THE woman, at her marriage, becomes wholly the man's, together with all her moveable goods, and if goods be given to a married woman, they immediately become her husband's: she cannot lett, sett, sell, give away, or alienate any thing without her husband's consent, not her very apparel, which at her husband's decease goes to the executor, or administrator of her husband (excepting her necessary apparel) which, with the consent of her husband, she may give by will, not otherwise by our *English* laws.

The

The wife, after her husband's death, having no jointure settled before marriage, may challenge the third part of his yearly rents of free-lands, for her life; and also the thirds of the rents of such free lands as he sold in his life-time, if she did not consent to a fine; but she can claim no thirds of such lands as her husband buys, when he has sold them again, and dieth, if he puts another person's name in the deed, besides himself, when he bought them. But if her husband died without a will in writing, leaving no child, she will claim the thirds, as above, and the third part of the goods for ever, and the other two thirds go to the next of his kindred.

But if she be the wife of a free-man of the city of London, (he dying without a will, leaving no child, as before) she will challenge by law, three parts of four of her husband's goods and chattles, and one third of the profits of his free-lands for life, the goods for ever. *By a late act of parliament persons since made free are not bound by this law.*

The husband must answer to his wife's fault; if she wrong another by her tongue, or by trespass, he must make satisfaction; and pay the debts that she causeth, except he did before give notice, that they should not trust her. *This is disputable.*

A woman cannot hope to have the thirds of her husband's land, which he mortgaged before marriage, till the money's paid, and mortgage be cancell'd.

A man and wife are joint purchasers of land, to them and their heirs and the survivors, and heirs; and if the husband dies, the wife may sell the land without the consent of their children.

A woman that kills her husband is to be burnt alive. If a wife brings forth a child, begotten by another before marriage, but born after marriage, the husband must own the child as heir at law.

A wife cannot be witness for, or against her husband, they two being but one in law.

If a wife bring forth a child during her husband's long absence, though it be some years, yet if he lived all the time within this island, he must father that child; and if that child be her first-born son, he shall inherit

the husband's estate, if intailed, or left without a will. *This has been lately tried, and decided otherwise.*

A woman that doth not hear of her husband for seven years together, may marry another man.

If a woman have no sons, but daughters, the lands, as well as goods are equally divided among the daughters, who are co-heirs.

Man and wife are so fast joined by our law, that they may not be wholly parted by our law, by any agreement between themselves; but only by the sentence of a proper judge, for adultery, &c.

Of Children, Sons, and Daughters.

A Father may give all his estate (not intail'd) to any one child, the consideration whereof keeps some children in awe.

A son at the age of 14, may chuse his guardian, be an executor, may consent to marriage, (if not an apprentice) may, by will, give his goods and chattels, and become bound in bonds, or covenants for necessities, food, raiment, schooling, &c.

At the age of 15, he may be sworn to his allegiance to the king.

At 21, he is said to be of full age, may sell land, (which in other countries is not till 25) when the heat of youth is somewhat abated, and they begin to be stay'd in mind, as well as in growth.

A daughter at 7 years may consent to marry, though she may afterwards dissent; at nine she may consent to a jointure.

At 12 she is able to confirm her former consent to marriage, and if at that age she dissent not, she is bound: she may at that age make a will of her goods, and become bound for necessities, &c.

At 13, she may receive her lands into her own hands, that are given, or fall to her. At 21, she may lett, sell, or will her lands.

The eldest son inherits all his father's lands (if the father died without a will) and to the younger children are disposed goods and chattels, and commonly the eldest son's wife's portion.

If a man marry a wife having free-land, and she dieth, leaving a child that is heard to cry, tho' it dieth presently, the man shall have the lands for his life. This is called, *The courtesy of England.*

Of servants.

ORdinary servants are hired, commonly for a year, (whereby they become inhabitants of that parish) at the end thereof, they may be free, (giving three months warning before) and may place themselves with other masters; only it is accounted discourteous and unfriendly, to take another man's servant, before leave given by his master; and indiscreet to hire a servant without a certificate of his diligence, and faithfulness, in the service of his last master, or somewhat to this effect.

Memorandum, *That I, B. A. do certify, that Q. P. the bearer hereof, hath been an honest and faithful servant unto me. Witness my hand the 4th of June 1754.*



FORMS of Receipts, Notes and Bills, &c.
necessary to be understood in order to
forming the Man of Business.

Various Forms of Acquittances, when an apprentice, or servant receives money for the use of his master, or employer, &c.

REceived the 27th of July, 1754, of Mr. James Adams, Nine pounds twelve shillings, for my master David Stone, on account,

Per James Thompson.

L. 9 12 —

Re.

Received the 6th of *September*, 1754, of *Henry Holland*, Fifty eight pounds ten shillings and four pence, in full payment for my master *Andrew Jones*,

Per *Matthew Burris*.

L. 58 10 04

Received the 24th of *August*, 1754, of *Mr. James Johnson* and company, Two hundred pounds, for *Mr. Thomas Murphy* and partners,

Per *Richard Williams*.

L. 200 — —

Received the 29th of *February*, 1754, of the honourable the *United East-India* company, Four thousand pounds sixteen shillings and six pence, for *Mr. English* and company,

Per *Peter Morgan*.

L. 4000 16 06

Received the 26th of *April*, 1754, of the governor and company of the bank of *England*, Ten thousand fifty pounds eighteen shillings, for *Mr. Michael Caxton* and company,

Per *Edward Carter*.

L. 10,050 18 —

Received the 26th of *March*, 1754, of the worshipful company of mercers, Eighty six pounds, for my father *Christopher Yates*,

Per *Edward Yates*.

L. 86 — —

Received the 13th of *March*, 1754, of *Mr. Richard Foxcraft*, Fifteen pounds, for a quarter's rent, due at *Christmasts* last, for my master *George Gibbons*,

Per *Isaac Jobson*.

L. 15 — —

Received the 18th of *June*, 1754, of *Mr. Lewis Armstrong*, Thirty five pounds eight shillings, in part of a bill of One hundred pounds, payable to *Mr. Simon Pure*, or order, due the 10th instant,

Per *George Norton*.

L. 35 08 —

Received the 29th of *January*, 1754, of *Mr. Thomas Laurence*, by order of *Mr. John Kent*, the sum of One hundred and fifty pounds six shillings and ten pence, on

account of Mr. *Nathaniel Combs*, of *Appleby*: I say received for my master *John Pye* and partner,

L. 150 06 10

Per *Isaac Taylor*.

Various Forms of Acquittances, upon receipt of money, by masters and men of business themselves.

Received this 6th of *June*, 1754, of Messrs. *John* and *James Simpsens*, Six hundred and forty pounds on account,

L. 640 — —

Per *William Burnet*.

Received the 16th of *July*, 1754, of the right honourable *William Parrot*, Esq; the sum of Three hundred and fifty pounds, in full of all demands, for self and company,

L. 350 — —

Per *James Dawson*.

Received the 17th of *August*, 1754, of Mr. *James Sims*, Thirty pounds, in full for interest of twelve hundred pounds due at *Midsummer* last,

L. 30 — —

Per *John Lowther*.

Received the 19th of *September*, 1754, by the order, and for the use of Mr. *Benjamin Blunt*, of Mr. *Stephen Carr*, Ten pounds ten shillings, and allowed for taxes and repairs, one pound ten, together, the sum of twelve pounds, in full for a quarter's rent, due at *Michaelmas* last.

L. 12 — —

Per *Joseph Rentroll*.

Received the 16th of *May*, 1754, of the executors of *James* late earl of *Bath*, by the hands of Mr. *George James*, the sum of Sixty five pounds, in full for my half year's annuity due at *Lady-day* last,

L. 65 — —

Per *Charles Steward*.

Received the 1st of *May*, 1754, of *Robert Pringle*, Esq; and the other owners of the ship *The Berwick*, the sum of

of Eighty three pounds ten shillings, in full for cordage, tackle, and trimming, furnished the said ship,

Per *Andrew Shipwright.*

L. 83 10 —

Promissory Notes by bankers apprentices, and servants.

Bristol, March 7th, 1754.

I Promise to pay the honourable *Charles Snell, Esq;* or bearer, on demand, Fifty pounds,

For Sir *Richard Jones* and partners,

Per *Charles Surety.*

L. 50 — —

London, November 20th 1754.

I promise to pay to the Royal *African* company, or bearer, on demand, Four thousand six hundred and sixty four pounds thirteen shillings and six pence, for my masters *George* and *James,*

Per *Adam Eve.*

L. 4664 13 06

Promissory Notes for a man's self, &c.

I Promise to pay to *Nathaniel Smith,* or bearer, on demand, Nine hundred pounds, *May 20th, 1754.*

Per *James Hunt.*

L. 900 — —

I promise to pay the governor and company of the bank of *England,* Ten thousand pounds, value received this 6th of *June, 1754,* for myself and partners,

Per *Israel Jack.*

L. 10,000 —

London, August 1st, 1754.

I promise to pay Mr. *Michael Pope,* cashier of his majesty's revenue of excise, or order, forty days after date, Five hundred and thirty pounds, value received,

Per *Andrew Cash.*

L. 530 — —

I promise to pay *Peter-Paul, Esq;* or order, on demand Four hundred and ninety four pounds, two shillings and six pence, value received this 16th of *March, 1754.*

Per *James Vernon.*

L. 494 02 06

I promise to pay to *Francis Dove*, Esq; or order, the sum of sixty pounds, on demand, after receipt of a bill of exchange drawn the 26th current, by *Humphry Trade*, on *Henry Henly* of *Northampton*, mercer, for the like sum payable to *William Pack*, Esq; or order, which the said *Francis Dove* has indorfed to me, this 29th of *Janr.* 1754.

L. 60 — —

Per *James George*.

A Bill of DEBT.

K NOW all men by these presents, that I *Michael Pool* of the county of *Durham*, Gent. do own and acknowledge myself justly to stand indebted to *Alexander Anderson* of the county of *York*, haberdasher, the just sum of twenty four pounds, of good and lawful money of *Great Britain*, and which I do hereby promise to pay unto him the said *Alexander Anderson*, on the 26th day of *August*, next ensuing the date hereof. Witness my hand this 12th day of *June*, in the year of our Lord 1754.

Michael Pool.

ANOTHER.

M Emorandum, That I *Thomas Bell*, of the parish of *St. Ambrose*, salter, do owe and am indebted to *James Purves* of the said place, mercer, the sum of Sixty pounds of good and lawful money of *Great Britain*, which sum I promise to pay to the said *James Purves*, his executors, administrators, or assigns, on, or before the 12th day of *October* next. In witness whereof, I have hereunto set my hand and seal the 27th day of *May*, in the year of our Lord, 1754.

Sign'd, seal'd and deliver'd

(being first legally stamp'd)

in preience of *John Jack*.

Thomas Bell. (L. S.)

Michael Oil.

A promissory note, mentioning order, is indorfbale from one person to another, which is done by the present possessor's writing his name on the back of it, and delivering it up to the party, to whom he intends to assign over his property therein.

The

The delivering up a promissory note to the person who sign'd it, is a sufficient voucher of its being paid, nor is there need of writing a receipt thereon.

Promissory notes, and book debts, if not legally demanded in the space of six years, cannot be recovered by law upon the debtor's pleading the statute, but they are recoverable in chancery.

If you keep a promissory note upon demand, in your own hands above three days, and the person it is upon should fail, the loss will be your own; but if he fail within three days, it will light in equity on the person that paid it ycu.

Promissory Notes.

Borrowed and received of *John Derby, Esq;* Seventy pounds, which I promise to pay to him, or order, on demand. Witness my hand this 29th of *September*, 1754.

L. 70 — —

Per Joseph Cash.

Borrowed and received of *Mr. Timothy Trusty*, Thirty pounds, which I promise to pay to him, or order, three months after date. Witness my hand this 14th of *August*, 1754.

L. 30 — —

Per Roger Dodds.

I promise to pay to *James Forrester, Esq;* or order, two hundred pounds eighteen shillings, on demand, value received. Witness my hand this 17th day of *July*, 1754.

L. 200 18 —

Per Ralph Cook.

N. B. Observe in promissory notes, that the value received is mentioned; or they are of no force.



Of ARITHMETICK.

After you are compleat in writing, you must next proceed to arithmetick, the knowledge of which is so necessary, that scarce any thing in life, and nothing in trade can be done without it.

And first of *notation* and *numeration*.

In *notation* we must observe that all numbers may be, and now generally are expressed by, or composed of, the ten figures or characters following, *viz.*

One, two, three, four, five, six, seven, eight, nine, cypher.
 1 2 3 4 5 6 7 8 9 0

Nine of these are called significant figures, to distinguish them from the cypher, which of itself signifies nothing; but as it is placed (in whole numbers) serves to increase the value of the next figure or figures that stand before it; as 3 is but three: but before the cypher thus, 30, the 3 becomes thirty, &c. ————— We are to note, that every one, or any, of the above nine figures or digits have two values; one certain, and another uncertain; the certain value is, when it stands alone by itself; the uncertain is, when joined or placed with other figures or cyphers; for when any one of these figures stand alone, it signifies no more than its own simple value; as 5 is but five, 4 but four, 6 is but six, and 3 no more than three, &c. And this is the certain value of a figure; but when another figure or cypher is annexed, than they are increased in their value ten times; as 5, or 5 units, or ones, to 5 tens, or fifty, 4 to 4 tens, or forty, 6 to 6 tens, or sixty, and 3 to 3 tens, or thirty; as thus, 51, fifty-one; 42, forty-two; 63, sixty-three; 34, thirty-four, &c. Again, if any of the said figures stand in the third place towards the left-hand, they then signify so many hundreds as singly they express units or ones; as 500 is five hundreds, 400

four

our hundreds, 600 six hundreds, and 300 three hundreds, &c. If any of them possess the fourth place towards the left-hand, they are so many thousands as they contain units: and so any, or every figure increases by a ten fold proportion, from the right-hand to the left, according to the place it is found or stands in; so that it may be but five, or fifty; five hundred, or five thousand; in the first place, 5; in the second, 50; in the third, 500; and in the fourth place, 5000, &c. And therefore, this is the uncertain value of a figure: but the true value of figures in conjunction, may be fully learn'd and understood by the following table.

The NUMERATION TABLE:

12 Hundreds of thousands of millions.	11 Tens of thousands of millions.	10 Thousands of millions.	9 Hundreds of millions.	8 Tens of millions.	7 Millions	6 Hundreds of thousands.	5 Tens of thousands.	4 Thousands.	3 Hundreds.	2 Tens.	1 Units.	Thousands of millions.	Millions.	Thousands.	Units, or Ones.
1	2	3	4	5	6	7	8	9	0	1	2	123	456	789	012
	1	2	3	4	5	6	7	8	9	0	1	12	345	678	901
		1	2	3	4	5	6	7	8	9	0	1	234	567	890
			1	2	3	4	5	6	7	8	9	123	456	789	
				1	2	3	4	5	6	7	8	12	345	678	
					1	2	3	4	5	6	7	1	234	567	
						1	2	3	4	5	6	123	456		
							1	2	3	4	5	12	345		
								1	2	3	4	1	234		
									1	2	3		123		
										1	2		12		
											1		1		

For

For the easier reading of any number, first get the words at the head of the table by heart ; as units, tens, hundreds, thousands, &c. and applied thus, 75, five units, five, and 7 tens, seventy, that is, seventy five. Again, 678 ; 8 units, eight, 7 tens, seventy ; and 6 hundreds, six hundred ; that is, six hundred seventy eight. Once more, 3456 ; 6 units, six ; 5 tens, fifty ; 4 hundreds, four hundred ; 3 thousands, three thousand ; together, three thousand four hundred fifty six. Read the 4th line of the table downwards, *viz.* 123456789 ; here the valuation of the figures is from the right hand to the left, as 1 in the ninth place is hundreds of millions, but to be read from the left hand to the right ; thus, one hundred twenty three millions, four hundred fifty six thousand, seven hundred eighty nine. But any number may yet be read more intelligibly, *viz.* by stops, thus ; make a comma at every third figure or cypher, beginning at the right hand, and so on towards the left, making a stop after every third figure or cypher, as aforesaid, thereby distinguishing every third place into hundreds, as hundreds of units, hundreds of thousands, hundreds of millions, and hundred thousands of millions, &c. and for tryal let's read the first line of the table ; the last place in valuation is hundred thousands of millions, and to be pointed into periods thus, 123,456,789,012 ; and read thus, one hundred twenty three thousand, four hundred fifty six millions, seven hundred eighty nine thousand, and twelve ; that is no hundreds, but twelve. Again, read the following number. *viz.* 276,245,678,921,460 ; here the first point or period is betwixt 4 and 1, and the last between 2 and 6, and to be read thus ; 276 millions of millions, 245 thousands of millions, 678 millions, 921 thousands, 460 units or ones. And thus may any number be read with ease, though a large one ; and thus are large numbers or sums expressed, or set out in the *exchequer, bank, and lottery tickets, &c.* as thus, No. 224,156—19,478—and 420,000, &c. the foregoing table of numeration is on the right hand distanced out into periods, for the easier reading thereof.

Numbers

Numbers to be read or written.

96, *Ninety six*242, *Two hundred forty two*7924, *Seven thousand nine hundred 24*54006, *Fifty four thousand and six*524707, *Five hundred twenty four thousand 707*4606240, *Four millions 606 thousand 240*62700472, *Sixty two millions 700 thousand 472*474960204, *Four hund. 74 millions 960 thous. 204*4214007042, *Four thous. 214 millions 7 thous. 42*470706420042, *Four hundred and 70 thousand 706 millions 420 thousand and 42**Of Numerical Letters.*

Sometimes numbers are expressed by letters; especially in the Bible, to signify the chapter or psalm; at the bottom of title pages of books for the date of the year, and frequently in inscriptions on funeral monuments, &c. for which reason 'tis necessary to know how to read them. Therefore observe, that I. stands for 1, or an unit. II. for 2. III. for 3. IV. for 4. V. for 5. VI. for 6. VII. for 7. VIII. for 8. IX. for 9. X. for 10. XI. for 11. XII. for 12. XIII. for 13. XIV. for 14. XV. for 15. XVI. for 16. XVII. for 17. XVIII. for 18. XIX. for 19. XX. for 20. XXI. for 21, &c. XXX. for 30. XXXI. for 31, &c. XL. for 40. XLV. for 45, &c. L. for 50. LI. for 51, &c. LX. for 60. LXI. for 61, &c. LXX. for 70. LXXI. for 71, &c. LXXX. for 80. LXXXI. for 81, &c. XC. for 90. XCI. for 91, &c. C. for 100. CC. for 200. CCC. for 300. CCCC. for 400. D. or IO. for 500. DC. for 600, &c. M. or CIO. for 1000, &c. Thus the present year 1754, is wrote MDCCCLIV.

ADDITION

IS the putting together two or more numbers or sums, in order to make them one total, or whole sum.

Here we must always observe to set the numbers to be added, orderly one under the other; that is, units under units, tens under tens, hundreds under hundreds, &c. as in the subsequent examples.

Add:-

*Addition of numbers of one denomination.**Yards**Gallons**Pounds*

Tens	Units	Hund.	Tens	Units	X. of Th.	Thou.	Hund.	Tens	Units
2	4	7	5	6	5	7	7	6	2
4	6	4	3	2	3	9	9	4	4
6	8	5	7	8	6	7	2	2	2
8	2	6	9	6	7	9	6	7	4
2	4	4	2	2	.	2	4	9	2
4	2	6	7	8	.	.	3	9	0
2 8 6		3 5 6 2		2 4 7 4 8 4					

In addition of simple numbers, whether it be *yards*, *gallons*, *pounds*, or any thing else, remember to carry 1 for every 10 you find in the row or rank of figures being units to the next row of tens; and the like from the rank of tens to the row of hundreds, &c. and whatever it makes in the last, you must set it down, amount to what it will. Thus:

The numbers above are set down in order, as before directed; that is, units under units, tens under tens, &c. as may be plainly understood, by being indicated at the head of each row or rank with units, tens, hundreds, &c. Then in casting up each example, to know its total, I begin at the right hand, or units rank, of the first example, and say 2 and 4 is 6, and 2 is 8, and 8 is 16, and 6 is 22, and 4 is 26; in which row there are two tens and 6 over; wherefore I set down 6 just under its own rank, and carry 2 to the next or last row, and say, 2 that I carry and 4 makes 6, and 2 is 8, and 8 is 16, and 6 is 22, and 4 is 26, and 2 is 28; and it being the last row, I set down the amount, *viz.* 28; so that the total number of *yards* is found to be (by this method) at the bottom 286. And the next, or second example, is found by the same method to be 3562 *gallons*. And in the third and last example, the total number of pounds is found to be 247484. And so the total of any other example of the same kind, *viz.* simple numbers of one denomination,

denomination, may be found. *Note*, That when any of the ranks amount to just 10, 20, 30, 40, 50, &c. then you must set down the 0, under its proper rank, and carry either 1, 2, 3, 4, or 5, according to the number of tens that you find, to the next row; and so you must always do, when it so happens, whether in the first, second, or third row, or in any other, except the last, where what it amounts to must be set down without any reserve or carriage in the mind, because there is no other row or rank to carry to, as was hinted before.

Addition of mixed Numbers.

Observe, 4 farthings make 1 penny, 12 pence make 1 shilling, 20 shillings make 1 pound sterling.

Libra in *Latin* signifying a pound, *l.* therefore, stands for pounds.

Solidus in *Latin* signifying a shilling, *s.* therefore stands for shillings.

Denarius in *Latin* signifying a penny, *d.* therefore stands for pence.

Quadrans in *Latin* signifying, farthing, *q.* therefore stands for farthings.

Observe, that pounds be set directly under pounds, shillings under shillings, pence under pence, and farthings under farthings.

But before you proceed, get this table of pence by heart, thus, 30d. is half a crown, then 60d. is 5. s. again 40d. is 3s. 4d. then 80d. is 6s. 8d. again, 50d. is 4s. 2d. then 100d. is 8s. 4d. &c. 100lb. of cheese at 3d. the lb. comes to three times 8s. 4d. or 100 of faggots, 120 to the hundred, at 1d. a-piece, comes to 10s. as in the table.

d.		s.	d.	s.	l.	s.
20	is	1	8	30	is	1 10
30	_____	2	6	40	—	2 —
40	_____	3	4	50	—	2 10
50	_____	4	2	60	—	3 —
60	_____	5	-	70	—	3 10
70	_____	5	10	80	—	4 —
80	_____	6	8	90	—	4 10
90	_____	7	6	100	—	5 —
100	_____	8	4	110	—	5 10
110	_____	9	2	120	—	6 —
120	_____	10	-	130	—	6 10

I

Then

Then for every crown that a hundred of faggots cost, reckon an half-penny; if the faggot costs me three half-pence, one hundred will cost 15s. because there is three crowns in it.

Note, That young men may improve themselves very much in reckoning up divers things, after they have by heart the table afore said, and learned this rule of addition.

As 100 yards of tape at one penny the yard, the table tells you it comes to 8s. 4d.

An hundred yards of ferreting at one penny half-penny the yard.

In the table 100d. is	_____	8s. 4d.
And half the sum is	_____	4s. 2d.

Answer 12s. 6d.

If one pound of any thing costs 7d. $\frac{1}{2}$, that is 7d. half-penny, what will 280lb. weight cost after the rate; performed by addition thus,

200 six-pences make 100s. or	_____	l. s. d.
80 six-pences makes	_____	5 —
200 pence	_____	2 —
80 pence is a noble, or	_____	- 16
200 half-pennies is 100 pence, or	_____	- 6
80 half-pennies make 10 groats, or	_____	- 8
		- 3

Price of the goods 8 15

Note, Now you have by heart the table of pence, you may cast up any sum of money without dotting, for when you know the number of pence, you may, by this table, know how many shillings to carry to the shillings place and for the number of shillings in the row of shillings you know that 70 shillings is 3l. 10s.

(10) (20) (12) 12 set over the pence, shews that
 l. s. d. for every 12 I find in the pence row,
 17 16. 1 am to carry 1 to the shillings; for
 20 11. 7. many 20s. as I find in the shilling
 23 18. 9. row, 1 to the place of pounds, as
 73 17 10 fore said.

But the easiest way of casting up the sum (for the young learner) is by using dots, thus:

136	4	3	
136	4	3	

Beginn

Beginning at the pence; I say $10d.$ and $9d.$ is $19d.$ where against the 9 I set a dot for $12d.$ (or you may make your dots on waste paper) and what is more or above 12 I carry to the next figure, *viz.* 7, and it makes 14, where I set a dot also for 12, and carry the remaining 2 to the 1 on the top, makes 3, which $3d.$ I set between the lines, as you see in the example.

Next, I look how many dots there are, and find 2, which I carry to the row of shillings, saying, 2 that I carry and $17s.$ is 19, and 18 is 37, where against the 18 I set a dot for $20s.$ or $1l.$ and carry the odd $17s.$ upwards, saying $17s.$ I carry and 11 is 28, where I set a dot against the 11 for another $20s.$ and carry the remaining 8 to the 16 on the top, saying, 8 I carry and 16 makes $24s.$ where I set down a dot for $20s.$ and set between the lines the remaining $4s.$ under the row of shillings.

Note, That you may sum up the shillings row without dotting, thus; saying, $2s.$ I carry from the place of pence, and 7 is 9, and 8 is 17, and 1 is 18, and 6 is 24, and 10 is 34, and 10 is 44, and 10 is 54, and 10 is 64, that is $3l. 4s.$ then the $4s.$ being set between the lines, the $3l.$ is to be carried to the pounds.

Lastly, The 3 dots for the $3l.$ found in the place of shillings, I carry to the pounds, saying, 3 that I carry and 3 is 6, and 3 is 9, and 7 on the top makes 16, the remaining 6 I set between the lines, under the first row of the pounds, and I carry 1 to the last row, saying, 1 that I carry, and 7 is 8, and 2 is 10, and 2 is 12, and 1 is 13, which being set between the lines, the whole sum comes to $136l. 4s. 3d.$

Note, That when you are to write a bill of several small parcels, begin it in order of pounds, shillings, and pence, 0 : 3 : 9, and when you are to set down $16d.$ set down $1s. 4d.$ or to set down $23s.$ you must set $1l. 3s. 0d.$

If a man owes me the three following sums of money, what come they to in the whole?

l. s. d. Note, That the $7d. \frac{1}{4}$ is seven pence
 202. 17. $7 \frac{1}{4}$ half-penny; and $1d. \frac{1}{4}$ is one penny
 703 1 9 farthing; and in the total sum be-
 906 10 $1 \frac{1}{4}$ tween the lines, $5d. \frac{3}{4}$ is five pence three
 1812 9 $5 \frac{3}{4}$ farthings.

To cast up the three sums I do thus
 the $\frac{1}{4}g.$ which is the farthings, and the $\frac{1}{2}$ the half-pen-
 ny, make $\frac{3}{4}$, or three farthings, which is set between the
 lines; next $1d.$ and $9d.$ is $10d.$ and $7d.$ is $17d.$ where a-
 gainst the 7 is set a dot for $12d.$ and set the odd $5d.$ be-
 tween the lines.

Next, 1 that I carry from the place of pence, and $10s.$
 is 11, and 1 is 12, and $17s.$ is $29s.$ I set down the re-
 maining $9s.$ between the lines, and the $20s.$ making 11.
 I carry to the place of pounds;

Saying, 1 I carry, and 6 is 7, and 3 is 10, and 2 is
 12, where I set a dot for 10, and set the remaining 2
 between the lines.

Next, I carry the dot for 10, as 1, to the middle
 row, (being all cyphers) it is but 1 still, so I set the 1
 under the row of cyphers, and proceed to the last row;

Saying, 9 and 7 is 16, and 2 at the top is 18, which I
 set between the lines, and the whole sum comes to
 1812 $\frac{1}{4}$, $9s. 5d. \frac{3}{4}$.

Addition of Money.

Money owing, and Money received, as follows,

(1)		<i>l. s. d.</i>	(2)		<i>l. s. d.</i>
Ow. to	Mr. A. B.	4 12 6	Rec.	R. B.	46 10 9
	Mr. C. D.	7 06 9		R. R.	79 16 0
	Mr. E. F.	4 12 0		C. B.	42 18 3
	Mr. G. H.	6 17 7		R. C.	66 12 4
	Mr. I. K.	5 06 6		B. R.	90 16 0
	Mr. L. M.	4 12 3		R. T.	84 17 6
	Mr. N. O.	6 00 0		G. H.	24 12 0
	Mr. P. Q.	5 15 4		G. B.	60 10 0
		45 02 11			496 12 10

I begin

I begin and say, 4 and 3 is 7, and 6 is 13, and 7 is 20, and 9 is 29, and 6 makes 35*d.* now 30*d.* according to the table, is 2*s.* 6*d.* and 5*d.* makes 2*s.* 11*d.* I set down 11 exactly under the rank of pence, and say, 2*s.* that I carry (which I do to the rank of shillings) and 5 is 7, and 2 is 9, (for I only take the unit rank of shillings) and 6 is 15, and 7 makes 22, and 2 is 24, and 6 is 30, and 2 makes 32; and now being come to the top of the sum, and it making 32, I come down with the tens of shillings, saying, 32 and 10 is 42, and 10 is 52, and 10 is 62, and 10 is 72, and 10 makes 82*s.* and the table telling me that 80*s.* is 4*l.* I know therefore 82*s.* is 4*l.* 2*s.* wherefore I set down the remaining 2*s.* just under the row of shillings, and carry 4*l.* to the pounds; saying, 4 that I carry, and 5 is 9, and 6 is 15, and 4 is 19, and 5 is 24, and 6 is 30, and 4 is 34, and 7 is 41, and 4 makes 45*l.* so that the total of those several sums of money due to those several persons, amounts to 45*l.* 2*s.* 11*d.* as in the example.

In the second example of money received, I begin at the right-hand, and say, 6 and 4 is 10, and 3 is 13, and 9 makes 22, and 22*d.* being 1*s.* 10*d.* I set down 10, and carry 1*s.* to the shillings; saying, 1 that I carry and 2 is 3 and 7 is 10, and 6 is 16, and 2 is 18, and 8 is 26, and 6 makes 32; then I come down with the tens, saying, 32 and 10 makes 42, &c. and I find at the bottom it comes to 112*s.* which making 5*l.* 12*s.* I set down 12*s.* and carry 5*l.* to the pounds, saying, 5 that I carry and 4 is 9, &c. I find that at the top it amounts to 36, wherefore I set down 6 exactly under its own rank, viz. the rank of units of pounds, and carry 3 for the tens that are in 30, (for at all times in the first denomination of addition, whether of money, weight, or measure; that is, in the denomination of pounds, tens, or yards, you must cast them up as sums of one denomination; that is, for every ten carrying one to the next, &c.) saying, 3 that I carry, and 6 is 9, and 2 is 11, and 8 is 19, &c. and find that at the top it comes to 49; wherefore I set down 49 before the 6; and the total amounts to 496*l.* 12*s.* 10*d.*

A TABLE of English Coins.

4 Farthings	}	make	{	1 Penny	}	thus marked	{	d.
12 Pence				1 Shilling,				s.
20 Shillings				1 Pound				l.

But the usual Coins are,

			l.	s.	d.
Of Gold,	{	A Jacobus,	Value	{	1 5 0
		A Carolus,			1 3 0
		A Guinea,			1 1 0
		A $\frac{1}{2}$ Guinea,			0 10 6
		A Crown,			0 5 0
		A $\frac{1}{2}$ Crown,	Value	{	0 2 6
Of Silver,	The names of the rest speak their value, as a Shilling, a Sixpence, a Groat, or 4d. a Threepence, a Twopence, a Penny.				
Of Copper,	{	A $\frac{1}{2}$ Penny	thus writ	{	0 0 0 $\frac{1}{2}$
		A Farthing,			0 0 0 $\frac{1}{4}$

Besides the above mentioned, we have still in use the names of some other pieces, which are now but imaginary, viz.

		l.	s.	d.
A Mark,	Value	0	13	4
An Angel,		0	10	0
A Noble,		0	6	8

Of Troy weight.

The least fraction or denomination of weight used in England, is a grain of wheat gathered out of the middle of the ear, and well dried; from whence are produced these following tables of weight, called *Troy weight*.

32 Grains of wheat	}	make	24 Artificial grains
24 Artificial grains			1 Penny-weight
20 Penny weight			1 Ounce
12 Ounces			1 Pound Troy weight

And

And therefore,

lb.	oz.	p. w.	grains.
11	2	— 20	— 24
1	12	— 240	— 5760
	1	— 20	— 480
		1	— 24

Troy weight serveth to weigh bread, gold, silver, and electuaries. It also regulateth and prescribeth a form how to keep the money of *England* at a certain standard. The goldsmiths have divided the ounce Troy weight into other parts, which they generally call *mark weight*. The denominative parts thereof are as followeth, *viz.* a mark (being an ounce Troy) is divided into 24 equal parts, called *carects*, and each carect into 4 grains; so that in a mark are 96 grains. By this weight they distinguish the different firmness of their gold; for if to 22 carects of gold be put 2 carects of alloy, (which is of silver, copper, or other baser metal, with which they use to mix their gold or silver to abate the fineness thereof) both making when mixed but an ounce or 24 carects, then this gold is said to be 22 carects fine; for if it come to be refined, the 2 carects of alloy will fly away, and leave only 22 carects of pure gold: the like to be considered of a greater or less quantity. And as the fineness of the gold is estimated by carects, so the fineness of silver is distinguished by ounces: for if a pound of it be pure, and loseth nothing in the refining, such silver is said to be twelve ounces fine; but if it loseth any thing, it is said to contain so much fineness as the loss wanteth of 12 ounces; as if it lost 1 ounce 14 penny weight, then it is said to be 10 ounces 6 penny weight fine; and that which loseth 2 ounces 4 penny weight 16 grains, is said to be 9 ounces 15 penny weight 8 grains fine, &c. the like of a greater or lesser quantity.

Of Apothecaries weight.

The apothecaries have their weights deduced from Troy weight, a pound Troy being the greatest integer; a table of whose division and subdivision followeth, *viz.*
And

And therefore,

			lb.	oz.	dr.	scr.	gr.
1 Pound	}	make	{	1—12—	8—	3—	20
1 Ounce							
1 Dram				1—12—	96—	288—	5760
1 Scruple					1—8—	24—	480
						1—3—	60
							1—20

Thus much concerning Troy weight, and its derivative weights; which, as was said before, serveth to weigh bread, gold, silver, and electuaries. Now, besides Troy weight, there is another kind of weight used in *England*, commonly known by the name of *Averdupois weight*, (1 pound of which is equal to 14 ounces 12 penny weight Troy weight); and it serveth to weigh all kind of grocery wares, as also butter, cheefe, flesh, wax, tallow, rosin, pitch, lead, and all such kind of garble; the table of which weight is as followeth.

The table of Averdupois weight.

4 Quarters of a dram	}	make	1 Dram
16 Drams			1 Ounce
16 Ounces			1 Pound
28 Pounds			1 Quarter of a hundred
4 Quarters			1 Hund. wt. or 112 lb.
20 Hundred			1 Tun

Tun.	C.	qrs.	lb.	oz.	dr.	qrs.
1—	20—	4—	28—	16—	16—	4—
1—	20—	80—	2240—	25840—	573440—	2293760
1—	4—	112—	1792—	28672—	114688—	
	1—	28—	448—	7168—	28672—	
		1—	16—	256—	1024—	
			1—	16—	64—	
				1—	4—	

Wool is weighed with this weight, but only the divisions are not the same; a table whereof followeth.

A table of the denominative parts of wool-weight.

7 Pounds	}	make	1 Clove
2 Cloves			1 Stone
2 Stones			1 Todd
6 Todd 1 stone			1 Wey
2 Weys			1 Sack
12 Sacks			1 Last

And therefore,

Last.	sack.	wey.	todd.	stone.	cloves.	lb.
1	12	2	6 $\frac{1}{2}$	2	2	7
1	12	24	156	312	624	44368
	1	2	13	26	52	364
		1	6 $\frac{1}{2}$	13	26	182
			1	2	4	28
				1	2	14
					1	7

Note, that in some counties the wey is 256 lb. Avoir-dupois, as in the *Suffolk* wey; but in *Effex*, there is 336 lb. in a wey.

The least denominative part of liquid measure is a pint, which was formerly taken from Troy weight, (1 pound of wheat, Troy weight, making a pint of liquid measure): but in regard of the difference between the brewers and farmers of his majesty's excise, concerning the gauging of vessels, occasioned by the different opinions of artists concerning the solid inches in a gallon, it was lately decided by act of parliament; the statute now making 282 solid inches in a beer gallon, and 231 in a wine gallon; and consequently the pint beer measure to contain 35 $\frac{1}{4}$ solid inches, and the pint wine measure to contain 28 $\frac{7}{8}$ cubical or solid inches. From whence is drawn the following table.

The

The table of liquid measure.

35 $\frac{1}{4}$ Cubical inches	}	make	1 Pint beer measure
28 $\frac{7}{8}$ Cubical inches			1 Pint wine measure
2 Pints			1 Quart
2 Quarts			1 Pottle
2 Pottles			1 Gallon
8 Gallons			1 Firkin of ale, soap, or herring
9 Gallons			1 Firkin of beer
10 Gallons and a half			1 Firk of salmon or eels
2 Firkins			1 Kilderkin
2 Kilderkins			1 Barrel
42 Gallons			1 Tierce of wine
63 Gallons			1 Hoghead
2 Hogheads			1 Pipe or butt
2 Pipes or butts			1 Tun of wine

And therefore,

<i>Tuns.</i>	<i>pipes.</i>	<i>hhds.</i>	<i>gall.</i>	<i>pints.</i>
1	2	2	63	8
1	2	4	252	2016
	1	2	126	1008
		1	63	504
			1	8

The least denominative part of dry measure is also a pint, and this is likewise taken from Troy weight: the table of whole division followeth.

The table of dry measure.

1 Pound Troy	}	make	1 Pint
2 Pints			1 Quart
2 Quarts			1 Pottle
2 Pottles			1 Gallon
2 Gallons			1 Peck
4 Pecks			1 Bushel
4 Bushels			1 Comb
2 Combs			1 Quarter
4 Quarters			1 Chaldron
5 Quarters			1 Wey
2 Weys			1 Laft

And

And therefore,

Last, wey. qrs. com. bush. pecks. gall. pints.

1	2	5	2	4	4	2	8
1	2	10	20	80	320	640	5120
1	5	10	40	160	320	2560	
1	2	8	32	64	512		
1	4	16	32	256			
1	4	8	64				
1	2	16					
1	8						

The least denominative part of long measure is a barley-corn well dried, and taken out of the middle of the ear; whose table of parts followeth.

3 Barley-corns	}	make	1 Inch
12 Inches			1 Foot
3 Feet			1 Yard
3 Feet 9 inches, or a yard and a quarter			1 Ell English
6 Feet			1 Fathom
5 Yards and a half			1 Pole, perch, or rood
40 Poles or perches			1 Furlong
8 Furlongs			1 English mile

And therefore

Mile. furl. poles. yards. feet. inches. barley-corns.

1	8	40	5 $\frac{1}{2}$	3	12	3
1	8	320	1760	5280	6320	1960080
1	40	220	660	7620	23760	
1	5 $\frac{1}{2}$	16 $\frac{1}{2}$	178	594		
1	3	36	208			
1	12	36				
1	3					

And note, that the yard, as also the ell, is usually divided into 4 quarters, and each quarter into 4 nails.

Note also, that a geometrical pace is 5 feet; and there are 1056 such paces in an English mile.

The

The parts of the superficial-measures of land, are such as are mentioned in the following table, *viz.*

A table of land measure.

40 Square poles or perches	}	make	{ 1 Rood or quarter of an acre
4 Roods			{ 1 Acre

By the foregoing table of long measure, you are informed what a pole, or, which is all one, a perch, is; and by this, that 40 square perches is a rood. Now, a square perch is a superficies very aptly resembled by a square trencher, every side thereof being a perch of $5\frac{1}{2}$ yards in length, 40 of them is a rood, and 4 roods an acre: so that a superficies that is 40 perches long and 4 broad, is an acre of land, the acre containing in all 160 square perches.

The least denominative part of time is 1 minute, the greatest integer being a year; from whence is produced this following table.

The table of time.

60 Minutes	}	make	{ 1 Hour
24 Hours			{ 1 Day natural
7 Days			{ 1 Week
4 Weeks			{ 1 Month
13 Months, 1 day, 6 hours.			{ 1 Year

But the year is usually divided into 12 unequal kalendar months; whose names, and the number of days they contain, follow, *viz.*

	Days.
January	31
February	28
March	31
April	30
May	31
June	30
July	31
August	31
September	30
October	31
November	30
December	31
	—
	365

So that the year containeth 365 days and 6 hours; but the 6 hours are not reckoned, but only every 4th year, and then there is a day added to the latter end of February, and then it containeth 29 days, and that year is called *leap year*, and containeth 366 days.

And

And here note, that as the hour is divided into 60 minutes, so each minute is subdivided into 60 seconds, and each second into 60 thirds, and each third into 60 fourths, &c.

The tropical year, by the exactest observation of the most accurate astronomers, is found to be 365 days, 5 hours, 49 minutes, 4 seconds, and 21 thirds.

The following example will make this rule plain to the learner. Thus these following sums being given to be added, *viz*, 136 *l*. 13 *s*. 4 *d*. 2 qrs, and 79 *l*. 7 *s*. 10 *d*. 3 qrs. and 33 *l*. 18 *s*. 9 *d*. 1 qr. also 15 *l*. 9 *s*. 5 *d*. 0 qrs. the numbers being disposed according to order, will stand as in the margin. Then I be-

gin at the denomination of farthings, and add them up; saying, 1 and 3 are 4, and 2 makes 6. Now I consider that 6 farthings are 1 penny and 2 farthings; wherefore I set down the 2 farthings in its place under the line, and keep one in mind to be added to the next denomina-

<i>l</i> .	<i>s</i> .	<i>d</i>	qrs.
136	13	4	2
79	7	10	3
33	18	9	1
15	9	5	0
265	9	5	2

tion of pence. Then I go on, saying, 1 that I carried, and 5 are 6, and 9 are 15, and 10 are 25, and 4 are 29. Now I consider, that 29 pence are 2 shillings and 5 pence; therefore I set the 5 pence in order under the line, and keep 2 in mind for the 2 shillings, to be added to the shillings. Then I go on, saying, 2 that carried and 9 are 11, and 18 are 29, and 7 are 36, and 13 are 49. Then I consider that 49 shillings are 2 pounds and 9 shillings; wherefore I set the 9 shillings under the line, and carry the 2 for the 2 pounds to the next and last denomination of pounds; and proceed, saying, 2 that I carried and 5 make 7, and 3 are 10, and 9 are 19, and 6 are 25. Then I set down 5, and carry 2 for the 2 tens, and proceed; saying, 2 that I carried and 1 is 3, and 3 are 6, and 7 are 13, and 3 make 16. And I set down 6, and carry 1 for the 10, and go on; saying, 1 that I carried and 1 are 2; which I set in its place under the line, and the work is finished. And thus I find the sum of the foresaid numbers to be 265 *l*. 9 *s*. 5 *d*. 2 qrs.

This to the ingenious practitioner is sufficient. But I shall, for the further illuminating of the weaker apprehensions,

hensions, explain the operation of another example in troy weight. And here the learner must take notice of the table of troy weight mentioned before. The numbers given in this example are, 38 *lb.* 7 *oz.* 13 *p. w.* 18 *gr.* and 50 *lb.* 10 *oz.* 10 *p. w.* 12 *gr.* and 42 *lb.* 8 *oz.* 5 *p. w.* 16 *gr.* And, in order to the addition thereof, I place them as you see, and proceed to operation; saying, 16 and 12 are 28, and 18 are 46. Now, because 24 grains make 1 penny-weight, 46 grains are 1 penny-weight and 22 grains; wherefore I set down 22, and carry 1 for the penny-weight; and, going on, I say, 1 that I carry and 5 makes 6, and 10 are 16, and 13 are 29; which is one ounce and 9 penny-weight. I set down 9 in its place under the line, and carry 1 to the ounces; saying, 1 that I carry and 8 are 9, and 10 are 19, and 7 are 26. And because 26 ounces make 2 pounds 2 ounces, I set down 2 for the ounces, and carry 2 to the pounds: going on, 2 that I carry and 2 are 4, and 8 makes 12; that is 2 and go 1: then 1 I carry and 4 are 5, and 5 are 10, and 3 are 13; which I set down as in the margin, and the work is finished: and I find the sum of the said numbers to amount to 132 *lb.* 2 *oz.* 9 *p. w.* 22 *gr.* This is sufficient for the understanding of the following examples, or any other that shall come to thy view. The way of proving these, or any sum in this rule, is shewed immediately after the ensuing examples.

Addition of Troy weight.

<i>lb.</i>	<i>oz.</i>	<i>pw.</i>	<i>gr.</i>
15	7	13	12
18	6	4	20
11	10	16	18
9	4	10	22
19	11	18	4
22	0	0	0
97	5	4	4

<i>lb.</i>	<i>oz.</i>	<i>pw.</i>	<i>gr.</i>
145	9	12	18
726	8	14	10
389	7	6	13
83	10	16	20
130	0	10	12
74	7	15	0
1550	8	10	11

Addition

Addition of apothecaries weight.

<i>lb. oz. dr. sc. gr.</i>	<i>lb. oz. dr. sc. gr.</i>
48—7—1—0—14	60—3—4—0—10
74—5—5—2—10	48—10—6—0—14
64—10—7—1—16	34—8—2—1—15
17—8—1—0—11	18—11—2—2—11
34—9—6—1—9	160—7—1—2—15
240—5—6—1—0	35—2—5—1—7
	358—7—7—0—12

Addition of Avoirdupois weight,

<i>Tuns C. qrs. lb.</i>	<i>lb. oun. dr.</i>
75—13—1—15	36—10—12
48—7—3—21	22—11—13
60—11—1—17	11—7—4
21—7—0—25	15—4—10
12—16—0—11	20—10—9
218—17—0—5	106—13—0

Addition of liquid measure.

<i>Tuns pipes hbds. gall.</i>	<i>Tuns hbds. gall. pints.</i>
45—1—1—48	30—3—40—4
15—0—1—17	12—0—28—6
38—0—0—47	47—5—60—5
12—1—0—56	57—3—22—3
21—1—1—18	17—0—0—0
133—0—1—60	168—1—26—2

Addition of dry measure.

<i>Chald. qrs. bush. pec.</i>	<i>qrs. bush. pec. gall.</i>
48—3—7—3	17—3—1—1
13—1—4—0	30—1—3—0
54—0—6—2	14—5—3—1
16—3—6—1	40—2—0—1
40—1—0—1	30—0—3—0
173—3—0—3	152—5—3—1

Addition of long measure.

Yards. qrs. nails.

35—3—3

14—1—2

74—2—3

38—0—1

30—1—0

15—0—0

208—1—1

Ells. qrs. nails.

56—1—3

13—3—2

48—2—1

50—1—0

74—0—2

17—1—0

260—0—0

Addition of land measure.

Acres. roods. perch.

12—3—18

14—0—24

30—2—19

48—3—20

28—1—38

50—3—26

185—3—35

Acres. roods. perch.

86—1—36

47—3—24

73—2—18

60—0—7

4—2—8

14—1—14

286—3—27

The proof of Addition.

Addition is proved after this manner. When you have found out the sum of the number given, then separate the uppermost line from the rest with a stroke or dash of the pen, and then add them all up again as you did before, leaving out the uppermost line; and having so done, add the new-invented sum to the uppermost line you separated; and if the sum of those two lines be equal to the sum first found out, then the work was performed true, otherwise not. As for example: let us prove the first example of addition of money, whose sum we found to be 265 *l.* 9 *s.* 5 *d.*

2 *qrs.*; and which we prove thus. Having separated the uppermost number from the rest by a line, as you see in the margin; then I add the same together again, leaving out the said uppermost line, and the sum thereof I set under the first sum or true sum, which doth amount to 128 *l.* 16 *s.* 1 *d.* 0 *qrs.*; then again I add this new sum

<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qrs.</i>
136	13	4	2
79	7	10	3
33	18	9	1
15	9	5	0
265	9	5	2
128	16	1	0
265	2	5	2

to the upermost line that before was separated from the rest, and the sum of those two is 265 *l.* 9 *s.* 5 *d.* 2 *qrs.* the same with the first sum; and therefore I conclude that the operation was rightly performed.

The main end of addition in questions resolvable thereby, is to know the sum of several debts, parcels, integers, &c. Some questions may be these that follow.

Quest. 1. There was an old man whose age was required. To which he replied, I have seven sons, each having two years between the birth of each other; and in the 44th year of my age my eldest son was born, which is now the age of the youngest. I demand, What was the old man's age?

Now, to resolve this question, first set down the father's age at the birth of his first child, which was 44; then the difference between the oldest and the youngest, which is 12 years; and then the age of the youngest, which is 44: and then add them all together; and their sum is 100, the compleat age of their father.

the father's age at the birth of his first child, which was 44;	44
then the difference between the oldest	12
and the youngest, which is 12 years; and then	44
the age of the youngest, which is 44: and then	—
add them all together; and their sum is 100, the	100

Quest. 2. A man lent his friend at several times these several sums, viz. at one time 63 *l.* at another time 50 *l.* at another time 48 *l.* at another time 156 *l.* Now I desire to know how much was lent him in all?

Set the sums lent one under another, as you see in the margin; and then add them together, and you will find their sum to amount to 317 *l.* which is the total of all the several sums lent, and so much is due to the creditor.

Set the sums lent one under another, as you see	63
in the margin; and then add them together, and	50
you will find their sum to amount to 317 <i>l.</i> which	48
is the total of all the several sums lent, and so	156
much is due to the creditor.	—

317

Quest. 3. From London to Ware is 20 miles, thence to Huntington 29 miles, thence to Stamford 21 miles, thence to Tuxford 36 miles, thence to Wentbridge 25 miles, from thence to York 20 miles. Now I desire to know how many miles it is from London to York, according to this reckoning?

Now, to answer this question, set down the several distances given, as you see in the margin; and add them together, and you will find their sum to amount to 151; which is the true distance in miles between London and York.

29
29
28
36
25
20

151

Quest. 4. There are two numbers, the least whereof is 40, and their difference 14. I desire to know what is the greater number, and also what is the sum of them both? First set down the least, *viz.* 40, and 14, the difference; and add them together, and their sum is 54. Greatest 54 for the greatest number. Then I set 40 Least 40 (the least) under 54, (the greatest), and add them together, and their sum is 94, Sum - 94 equal to the greatest and least numbers.

Of subtraction of whole numbers.

1. **S**ubtraction is the taking of a lesser number out of a greater of a like kind, whereby to find out a third number, being or declaring the inequality, excess or difference between the numbers given. Or, subtraction is that by which one number is taken out of another number given, to the end that the residue or remainder may be known; which remainder is also called the *rest*, *remainder* or *difference* of the numbers given.

2. The number out of which subtraction is to be made, must be greater, or at least equal with the other number given. The higher or superior number is called the *major* number; and the lower or inferior is called the *minor* number; and the operation of subtraction being finished, the rest or remainder is called the *difference* of the numbers given.

3. In subtraction, place the numbers given respectively the one under the other, in such sort as like degrees, places, or denominations, may stand in the same series, *viz.* units under units, tens under tens, pounds under pounds, &c. feet under feet, and parts under parts,

etc. This being done, draw a line underneath, as in addition.

4 Having placed the numbers given as is before directed, and drawn a line under them, subtract the lower number (which in this case must always be less than the uppermost) out of the higher number, and subscribe the difference or remainder respectively below the line; and when the work is finished, the number below the line will give you the remainder.

As for example: Let 364521 be given to be subtracted from 795836. I set the lesser under the greater, as in the margin, and draw a line under them; then beginning at the right hand, I say, 1 out of 6, and there remains 5, which I set in order under the line. Then I proceed to the next, saying, 2 from 3 rests 1; which I note also under the line. And thus I go on till I have finished the work. And then I find the remainder or difference to be 431315.

$$\begin{array}{r} 795836 \\ - 364521 \\ \hline 431315 \end{array}$$

5. But if it so happen, as commonly it doth, that the lowermost number or figure is greater than the uppermost; then, in this case, add 10 to the uppermost number, and subtract the said lowermost number from their sum, and the remainder place under the line; and when you go to the next figure below, pay an unit, by adding it thereto for the 10 you borrowed before, and subtract that from the higher number of figures. And thus go on till your subtraction be finished. As for example: Let 437503 be given, from whence it is required to subtract 153827, I dispose of the numbers as is before directed, and as you see in the margin; then I begin, saying, 7 from 3 I cannot, but, adding 10 thereto, I say, 7 from 13, and there remains 6; which I set under the line in order. Then I proceed to the next figure, saying, 1 that I borrowed and 2 is 3 from 0 I cannot, but 3 from 10, and there remains 7; which I likewise set down as before. Then 1 that I borrowed and 8 is 9 from 5 I cannot, but 9 from 15, and there remains 6. Then 1 I borrowed and 3 is 4 from 7, and there remains 3. Then 5 from 3 I cannot, but 5 from 13, and there remains 8. Then 1 I borrowed and 1 are 2 from 4, and there

$$\begin{array}{r} 437503 \\ - 153827 \\ \hline 283676 \end{array}$$

there rests 2. And thus the work is finished. And after these numbers are subtracted one from another, the inequality, remainder, excess or difference, is found to be 283676. Examples for thy farther experience may be these that follow.

From 3469916
Take 738642

Rests 2731274

From 361576
Take 5864

Rests 355712

6. If the sum or number to be subtracted is of several denominations, place the lesser sum below the greater, and in the same rank and order as is shewed in addition of the same numbers. Then begin at the right hand; and take the lower number out of the uppermost, if it be lesser; but if it be bigger than the uppermost, then borrow an unit from the next greater denomination, and turn it into the parts of the less denomination, and add those parts to the uppermost, noting the remainder below the line. Then proceed, and pay 1 to the next denomination for that which you borrowed before; and proceed in this order, until the work be finished. An example of this rule may be this that followeth. Let 375 *l.* 13 *s.* 7 *d.* 1 *qr.* be given, from whence let it be required to subtract 57 *l.* 16 *s.* 3 *d.* 2 *qrs.* In order whereunto I place the numbers as you see in the margin. And thus I begin at the least denomination, saying, 2 from 1 I cannot, therefore I borrow 1 penny from the next denomination, and turn it into farthings, which is 4; and adding 4 to 1, which is 5, I say, 2 from 5, and there remains 3; which I put under the line. Then going on, I say, 1 that I borrowed and 3 is 4 from 7, and there rests 3. Then going on, I say, 16 from 13 I cannot, but borrowing 1 pound, and turning it into 20 shillings, I add it to 13, and that is 33; wherefore I say, 16 from 33, and there remains 17; which I set under the line; and go on, saying, 1 that I borrowed and 7 is 8 from 5 I cannot, but 8 from 15, and there remains 7; the 1 that I borrowed and 5 is 6 from

<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qr.</i>
375	13	7	1
57	16	3	2
317	17	3	3

from 7, there rests 1, and 0 from 3 rests 3. And I find the remainder or difference to be 317 *l.* 17 *s.* 3 *d.* 3 *grs.*

An example of Troy weight may be this. I would subtract 17 *lb.* 10 *oz.* 11 *pw.* 20 *gr.* from 24 *lb.* 5 *oz.* 0 *pw.* 8 *gr.* I place the numbers according to the rule; and begin, say-

ing 20 from 8 I cannot, but borrow 1 penny weight, which is 24 grains, and add them to 8, and they are 32, wherefore I say, 20 from 32 rests 12. Then 1 that I borrowed and 11

<i>lb.</i>	<i>oz.</i>	<i>pw.</i>	<i>gr.</i>
24	5	0	8
17	10	11	20
6	6	8	12

is 12 from 0 I cannot, but 12 from 20, borrowing an ounce, which is 20 penny-weight, and there remains 8. Then 1 that I borrowed and 10 is 11 from 5 I cannot, but 11 from 17, and there rests 6. Then 1 that I borrowed and 7 is 8 from 4 I cannot, but 8 from 14, and there rests 6. Then 1 that I borrowed and 1 is 2 from 2, and there rests nothing. So that I find the remainder or difference to be 6 *lb.* 6 *oz.* 8 *pw.* 12 *gr.*

7 It many times happeneth, that you have many sums or numbers to be subtracted from one number; as suppose a man should lend his friend a certain sum of money, and his friend hath paid him part of his debt at several times. Then, before you can conveniently know what is still owing, you are to add the several numbers or sums of payments together, and subtract their sum from the whole debt, and the remainder is the sum due to the creditor. As suppose A lendeth to

B 564 *l.* 16 *s.* 10 *d.* and

B hath repaid him 79 *l.*

16 *s.* 8 *d.* at one time,

and 163 *l.* 18 *s.* 11 *d.* at

another time, and 241 *l.*

15 *s.* 8 *d.* at another

time; and you would

know how the accompt

standeth between them,

or what more is due to

A. In order whereun-

to I first set down the

sum which A lent, and draw a line underneath it;

then under that line I set the several sums of payment

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Lent - - -	564	16	10
Paid at several payments	79	16	8
	163	18	11
	241	15	8
Paid in all	485	11	3
Remains - -	79	5	7

as you see in the margin; and having brought the several sums of payment into one total, I find their sum amounteth to 485 *l.* 11 *s.* 3 *d.* which I subtract from the sum first lent by A. and I find the remainder to be 79 *l.* 5 *s.* 7 *d.* and so much is still due to A

When the learner hath good knowledge of what hath been already delivered, he will with ease understand the following examples.

Subtraction of money.

	<i>l.</i>	<i>s.</i>	<i>d.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qrs.</i>
Borrowed	374	10	3		700	10	11	2
Paid	79	15	11		9	3	11	3
Remains	294	14	4		691	6	11	3

	<i>l.</i>	<i>s.</i>	<i>d.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qrs.</i>
Borrowed	1000	—	0	—	711	3	0	0
Paid	19	—	0	—	11	13	0	1
Rem. due	980	—	19	—	699	9	11	3

	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qrs.</i>
Borrowed	-	-	-	3200—0—0—0
Paid at several payments	-	-	-	{ 170—10—0—0 261—13—10—1 590—3—14—3 73—4—11—3
Paid in all	-	-	-	1195—12—2—3
Remains due	-	-	-	2104—7—9—1

Subtraction of Troy weight

	<i>l.</i>	<i>oz.</i>	<i>pwt.</i>	<i>gr.</i>
Bought	-	-	-	174—0—13—0
Sold	-	-	-	78—4—16—15
Remains	-	-	-	95—7—16—9

Bought

			l.	oz.	pw.	gr.
Bought	-	-	470	10	13	0
			60	0	0	0
			35	10	18	0
Sold at several times	-	-	16	7	9	8
			48	4	0	0
			61	11	19	23
			23	0	0	0
Sold in all	-	-	245	0	7	17
Remains unfold	-	-	225	0	5	17

Subtraction of apothecaries weight.

	l.	oz.	dr.	sc.	gr.	lb.	oz.	dr.	sc.	gr.
Bought	12	4	0	0	0	20	0	1	0	7
Sold	8	5	1	1	15	10	0	1	2	12
Remains	3	11	1	1	5	9	11	7	0	15

Subtraction of Avoirdupois weight.

	C.	qrs.	lb.	Tu.	C.	qrs.	lb.	oz.	dr.
Bought	35	0	15	5	7	1	10	10	5
Sold	16	2	20	3	17	1	16	9	13
Remains	18	1	23	1	9	3	22	0	8

Subtraction of liquid measure.

	Tuns.	hhd.	gall.	Tun.	hhd.	gall.	pints.
Bought	40	1	30	60	3	42	4
Sold	16	1	40	15	3	46	6
Remains	23	3	53	44	3	58	6

Subtraction of dry measure.

	Cbal.	qrs.	bush	pec.	Chald.	qrs.	bush.	pec.
Bt.	100	0	0	0	73	2	3	2
Sd.	54	1	4	3	46	2	3	3
Rem.	45	2	3	1	26	3	7	3

Sub-

Subtraction of long measure.

	<i>Yards. qrs. nails.</i>		<i>Yards. qrs. nails.</i>
Bought	160—0—0		344—0—1
Sold	64—1—2		177—1—3
Remains	95—2—2		166—2—2

Subtraction of land measure.

	<i>Acres. rood. perch.</i>		<i>Acres. rood. perch.</i>
Bought	140—2—13		600—0—0
Sold	70—3—12		54—0—16
Remains	69—3—1		545—3—34

Proof of Subtraction.

Sums in this rule are easily proved, by adding their remainders to their lesser numbers; which (if right) will make the greater

MULTIPLICATION.

Multiplication may be accounted the most serviceable rule in arithmetick; it performeth the work of many additions in the most compendious manner, brings numbers of great denominations into small, as pounds into shillings, pence, or farthings; tuns into hundreds, quarters, pounds, or ounces, &c. and by knowing the value of one thing, we find the value of many.

In multiplication observe these three terms, *multiplcand, multiplier, product.*

1. The *multiplcand*, (generally the greater of the two numbers) is the number to be multiplied.
2. The *multiplier*, (generally the lesser of the two numbers) is the number to multiply with.
3. The *product*, is the result of the work, or the answer to the question. But before any thing can be done

to

to the purpose, it is necessary to learn the following table perfect by heart.

The MULTIPLICATION TABLE.

3 times	{	3	9
		4	12
		5	15
		6	18
		7	21
		8	24
		9	27

4 times	{	4	16
		5	20
		6	24
		7	28
		8	32
		9	36

5 times	{	5	25
		6	30
		7	35
		8	40
		9	45

6 times	{	6	36
		7	42
		8	48
		9	54

7 times	{	7	49
		8	56
		9	63

8 times	{	8	64
		9	72

9 times	9	81
---------	---	----

12 times	{	2	24
		3	36
		4	48
		5	60
		6	72
		7	84
		8	96
		9	108
		10	120
		11	132
		12	144

What is the amount of 3 times 654?

Answer, If you set the number 654, 3 times down on paper, one over another, the total will be 1962.

But such questions are done by this rule of multiplication much readier, for being set down thus:

654 *Multiplicand*
3 *Multiplier.*

Now to know how much 3 times 654 is, begin thus, saying, 3 times 4 is 12, the figure 2 of the 12, set below the

the line, and bear the 10 of the 12 in mind, as 1; next, 3 times 5 is 15, and the 1 bore in mind, makes 16, so I set 6 below the line, and bear the 10 in mind as 1; next, I say, 3 times 6 is 18, and 1 bore in mind makes 19, which I set down, and the work will stand as in the margin.

654
3
—
1962

How many is 3 times 472? Set the figures down as in the margin; then say, 3 times 2 is 6, which place under the 2 in the multiplicand; then 3 times 7 is 21; set down 1 under 7, and carry 2, for 2 tens, as in addition of one denomination; then 3 times 4 is 12, and 2 is 14; which set down, and the product is 1416, that is 3 times 472 makes so much; and may be proved by *addition*, by setting down 472 three times in additional order, and casting it up, which makes the assertion good in the second definition, that this rule compendiously performs the office of addition. Likewise the foregoing examples agree with the first definition; for as 3 times 472 makes 1416, so doth 472 times 3 make the same, *viz.* 1416.

472
3
—
1416

Example. Again, *How many makes 742 multiplied by 4?*

742	Multiplicand	} Here I say, 4 times 2 is 8, and 4 times 4 is 16; 6 and carry 1; and 4 times 7 is 28, and 1 is 29, which set down; so the whole product is 2968, as <i>per</i> example.
4	Multiplier	
2968	Product	

More examples of one figure in the *multiplier*, are these, *viz.*

Multiplicand	7420	4444	7460	90704	56789
Multiplier	5	6	7	8	9
Product	37100	26664	52220	725632	511101

In Compound Multiplication,

When the multiplier consists of more figures than one, you must begin with that figure which is in the place of units

units of the multiplier, and go thro' the whole *multiplier*, by multiplying each figure of it first by that said unit figure, then by the next, to wit, by the figure in the place of tens of the *multiplier*, then with the third, &c. to the last; always remembering to place the first figure of every product or line, (for you will ever have as many as you have significant figures in the *multiplier*) I say, remember to place the first figure of each line exactly and perpendicularly under the figure you multiply by; and then add the several lines or products together, which so collected, gives the total product required, as in the examples following, *viz.*

Example.

How many is, or are, 23 times 7426? First, begin with the unit figure 3 in the *multiplier*, saying, 3 times 6 is 18; 8 (which I set directly under 3, by which I multiply) and carry 1; then 3 times 2 is 6, and 1 is 7; then 3 times 4 is 12; 2 and carry 1; then 3 times seven is 21, and 1 is 22. And so I have done with the first figure of the *multiplier*, *viz.* 3. Then I go to the next, that is 2, and say twice 6 is 12; 2 and carry one; (which 2 is placed in a direct line under 2 the multiplying figure) then twice 2 is 4, and 1 is 5; then twice 4 is 8; and lastly, twice 7 is 14, which I set down: then I add the 2 products together, saying, 8 is 8, &c. and the total is the right and proper product, or result of the multiplication, *viz.* 170798.

$$\begin{array}{r}
 7426 \\
 23 \\
 \hline
 22278 \\
 14852 \\
 \hline
 170798
 \end{array}$$

$$\begin{array}{r}
 527535 \\
 15728 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 4220280 \\
 1055070 \\
 3692745 \\
 2637675 \\
 527535 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 8297070480 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 275827 \\
 19725 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 1379135 \\
 551654 \\
 1930789 \\
 2482443 \\
 275827 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 5440687575 \\
 \hline
 \end{array}$$

When cyphers are intermixt with figures in the multiplier, then multiply by the figures as above; and when you come to a cypher, in the multiplier, then set down another cypher exactly and perpendicularly under it; then begin the multiplicand again with the next figure to the cypher in the multiplier, and go through it in the same line, placing the first figure of that product next to the cypher towards the left hand; but then heed must be taken, that the next figure or cypher of the next line must be set down one degree farther towards the left-hand, and not immediately under the last figure set down next to the cypher: as in the following examples may be fully understood.

$$\begin{array}{r} 24393 \\ 402 \\ \hline \end{array}$$

$$\begin{array}{r} 148786 \\ 975720 \\ \hline \end{array}$$

$$\begin{array}{r} 9805986 \\ \hline \end{array}$$

$$\begin{array}{r} 7864371 \\ 23604 \\ \hline \end{array}$$

$$\begin{array}{r} 31457484 \\ 471862260 \\ \hline \end{array}$$

$$\begin{array}{r} 23593113 \\ 15728742 \\ \hline \end{array}$$

$$\begin{array}{r} 185630613084 \\ \hline \end{array}$$

$$\begin{array}{r} 327586 \\ 6030 \\ \hline \end{array}$$

$$\begin{array}{r} 9827580 \\ 19655160 \\ \hline \end{array}$$

$$\begin{array}{r} 1975343580 \\ \hline \end{array}$$

When you have a cypher or cyphers in the multiplier, at the beginning towards the right-hand; then set it or them backwards from the place of units towards the right-hand; and when you have multiplied by the figure or figures, annex the cypher or cyphers:

As in these examples.

$$\begin{array}{r} 4762 \\ 70 \\ \hline \end{array}$$

$$\begin{array}{r} 333340 \\ \hline \end{array}$$

$$\begin{array}{r} 47962 \\ 400 \\ \hline \end{array}$$

$$\begin{array}{r} 19184800 \\ \hline \end{array}$$

$$\begin{array}{r} 4632 \\ 2600 \\ \hline \end{array}$$

$$\begin{array}{r} 27792 \\ 9264 \\ \hline \end{array}$$

$$\begin{array}{r} 12043200 \\ \hline \end{array}$$

If you have cyphers in the units places, &c. both in the multiplicand and multiplier, then neglect the cyphers

phers in both, and multiply by the figures, and annex as many cyphers to the total product as is the sum of the cyphers, both in the multiplicand and multiplier.

As in these examples.

42600	42300	376400
220	12000	2400
852	846	15056
852	423	7528
9372000	507600000	903360000

When you are to multiply by 10, 100, 1000, or 10000; it is only adding or annexing so many cyphers to the multiplicand, as is in the multiplier, that is, either 1, 2, 3, or 4 cyphers, and the work is done. *Example,* Suppose I am to multiply 375 by the numbers above; if I multiply it by 10, then I join 0 to 375, and then it makes, or the product is, 3750: if by 100; then I annex 00, and then it makes 37500; if by 1000, I put to it 000, and then it produces 375000: and lastly, if by 10000, I then add 0000, and then it makes 3750000, &c. And thus may any number be multiplied, when the multiplier consists of an unit with any number of cyphers.

Suppose you want to know how many half-crowns there are in 246l. you know that 8 half-crowns make a pound, wherefore set them down thus:

Multiply by $\begin{array}{r} 246l. \\ 8 \end{array}$ the half crowns in a pound.

Answer $\underline{\hspace{1cm}}$ 1968 half-crowns in all.

Again, *In 1968 half crowns how many pence.*
Multiply by $\underline{\hspace{1cm}}$ 30 the pence in a half-crown.

Answer $\underline{\hspace{1cm}}$ 59040 pence in 1968 half-crowns.

And this serves to make out, that great denominations are brought into smaller by this rule.

Admit you wanted to know the contents of a large table 34 feet long, and 4 feet wide.

Multiply 34 the length
by 4 the breadth, and the

Answer will be 136 square feet for the true
Contents of such a table. —

Multiplication of Money.

Multiplication of Money (what most would learn above every thing) hath great affinity with addition of money; the same method being taken in carrying one denomination to the next, *viz.* from farthings to pence, from pence to shillings, and from shillings to pounds. And as in addition, (and other multiplications) you begin at the right-hand, and proceed towards the left; so here you begin at the least denomination, which is also at the right-hand.

This method of accompting is the most apt and expeditious of all others, for smaller quantities; and therefore extremely necessary in making bills of parcels, &c. And is, beyond all contradiction, as sure and certain as any way whatsoever.

The general Rule,

Is always to multiply the price by the quantity.

The first step is, for quantities from 2 to 12; and this is done by one multiplier; as in the following example:

Example 1. *What must I give for 6 pieces of cloth, if one cost 7 l. 12 s. 6 d.*

l.	s.	d.
7	12	6
		6

Multiply the price by

And the product is the answer, *viz.* L. 45 15 0

Here

Here I say 6 times 6 is 36 pence, which is just 3 s. I set down 0 in the place of pence, and carry 3 s. to the place of shillings, exactly the same as in addition of money; then 6 times 12 is 72, and 3 is 75 s. or 3 l. 15 s. wherefore I set down 15 in the place of shillings, and carry 3 to the pounds; then 6 times seven is 42 and 3 is 45 l. So the whole amount of the cloths, at 7 l. 12 s. 6 d. per cloth, is 45 l. 15 s. as in the work, and very concise.

Some Questions proper to this rule, may be these following.

Quest. 1. What is the content of a square piece of ground, whose length is 28 perches, and breadth 13 perches?

Answer, 364 square perches: for multiplying 28 the length by 13 the breath, the product is so much.

Quest. 2. There is a square battle, whose flank is 47 men, and the files 19 deep; what number of men doth that battle contain? *Facit* 893: for multiplying 47 by 19, the product is 893.

Quest. 3. If any one thing cost 4 shillings, what shall 9 things cost? *Answ.* 36 shillings: for multiplying 4 by 9, the product is 36.

Quest. 4. If a piece of money or merchandize be worth or cost 17 shillings, what shall 19 such pieces of money or merchandize cost? *Facit* 323 shillings, which is equal to 16 l. 3 s.

Quest. 5. If a soldier or servant get or spend 14 s. per month, what is the wages or charges of 49 soldiers or servants for the same time? Multiply 49 by 14, the product is 686 s. or 34 l. 6 s. for the answer.

Quest. 6. If in a day there are 24 hours, how many hours are there in a year, accounting 365 days to constitute the year? *Facit* 8760 hours: to which if you add the 6 hours over and above 365 days, as there is in a year, then it will be 8766 hours. Now, if you multiply this 8766 by 60, the number of minutes in an hour, it will produce 525960, the number of minutes in a year.

Division

Division of whole Numbers.

1. **D**ivision is the separating or parting of any number or quantity given into any parts assigned; or to find how often one number is contained in another; or from any two numbers given, to find a third that shall consist of so many units, as the one of those two given numbers is comprehended or contained in the other.

2. Division hath three parts or numbers remarkable, *viz.* first the dividend; secondly, the divisor; thirdly, the quotient. The dividend is the number given to be parted or divided. The divisor is the number given by which the dividend is divided; or it is the number which sheweth how many parts the dividend is to be divided into. And the quotient is the number produced by the division of the two given numbers, the one by the other.

So 12 being given to be divided by 3, or into three equal parts, the quotient will be 4; for 3 is contained in 12 four times; where 12 is the dividend, and 3 is the divisor, and 4 is the quotient.

3. In division set down your dividend, and draw a crooked line at each end of it; and before the line at the left hand place the divisor, and behind that on the right hand place the figures of the quotient, as in the margin; where it is required to $3) 12 (4$ divide 12 by 3. First I set down 12 the dividend, and on each side of it do I draw a crooked line, and before that on the left hand do I place 3 the divisor. Then do I seek how often 3 is contained in 12; and because I find it 4 times, I put 4 behind the crooked line on the right hand of the dividend, denoting the quotient.

4. But if, when the divisor is a single figure, the dividend consisteth of two or more places; then, having placed them for the work, as is before directed, put a point under the first figure on the left hand of the dividend, provided it be bigger than, or equal to the divisor; but if it be less than the divisor, then put a point under the second figure from the left hand of the dividend: which figures, as far as the point goeth from the left hand,

are

are to be reckoned by themselves, as if they had no dependence upon the other part of the dividend; and, for distinction's sake, may be called the *dividual*. Then ask how often the divisor is contained in the dividual; placing the answer in the quotient. Then multiply the divisor by the figure that you placed in the quotient, and set the product thereof under your dividual. Then draw a line under the product, and subtract the said product from the dividual, placing the remainder under the said line. Then put a point under the next figure in the dividend on the right hand of that to which you put the point before, and draw it down, placing it on the right hand of the remainder which you found by subtraction; which remainder, with the said figure annexed to it, shall be a new dividual. Then seek again how often the divisor is contained in this new dividual; and put the answer in the quotient on the right hand of the figure which you put there before. Then multiply the divisor by the last figure that you put in the quotient, and subscribe the product under the dividual, and make subtraction; and to the remainder draw down the next figure from the grand dividend, (having first put a point under it), and put it on the right hand of the remainder for a new dividual, as before, &c. and proceed thus till the work is finished.

Observing this general rule in all kinds of division.

First, To seek how often the divisor is contained in the dividual. Then, having put the answer in the quotient, multiply the divisor thereby, and subtract the product from the dividual. An example or two will make the rule plain. Let it be required to divide 2184 by 6. I dispose the numbers given as is before directed, and as you see in the margin, in order to the work.

Then, because 6 the divisor is more than 2 the first figure of the dividend, I put a point under 1 the second figure, which makes 21 for the dividual. Then do I ask how often 6 the divisor is contained in 21, and because I cannot have it more than 3 times, I put 3 in the quotient, and thereby do I multiply the divisor (6) and the product is 18, which I set in order under the dividual, and sub-

$$\begin{array}{r}
 6) 2184(3 \\
 \underline{18} \\
 3 \text{ tract}
 \end{array}$$

tract it therefrom, and the remainder (3) I place in order under the line, as you see in the margin.

Then do I make a point under the next figure of the dividend, being 8, and draw it down, annexing it to the remainder 3; so have I 38 for a new dividual. Then do I seek how often 6 is contained in 38; and because I cannot have it more than 6 times, I put 6 in the quotient; and thereby do I multiply the divisor (6) and the product (36) I put under the dividual (38), and subtract it therefrom, and the remainder (2) I put under the line, as you see in the margin.

$$\begin{array}{r}
 6) 1284 \quad (36 \\
 \underline{00} \\
 38 \\
 \underline{36} \\
 2
 \end{array}$$

Then do I put a point under the next (and last) figure of the dividend, (being 4), and draw it down to the remainder (2); and putting it on the right hand thereof, it maketh 24 for a new dividual. Then I seek how often 6 is contained in 24; and the answer is 4, which I put in the quotient, and multiply the divisor (6) thereby, and the product (24) I put under the dividual (24), and subtract it therefrom, and the remainder is 0. And thus the work is finished; and I find the quotient to be 364; that is 6 is contained in 2184 just 364 times, or 2184 being divided into 6 equal parts, 364 is one of those parts.

$$\begin{array}{r}
 6) 2184 \quad (364 \\
 \underline{00} \\
 38 \\
 \underline{36} \\
 24 \\
 \underline{24} \\
 (0)
 \end{array}$$

Again, if it were required to divide 2646 by 7, or into 7 equal parts, the quotient will be found to be 378; as appeareth by the operation on the margin.

$$\begin{array}{r}
 7) 2646 \quad (378 \\
 \underline{00} \\
 21 \\
 \underline{21} \\
 54 \\
 \underline{49} \\
 56 \\
 \underline{56} \\
 (0)
 \end{array}$$

So if it were required to divide 946 by 8, the quotient will be found to be 118, and 2 remaining after division is ended. The work appeareth on the margin.

$$\begin{array}{r}
 8 \overline{) 946} \quad (118 \\
 \underline{00} \\
 14 \\
 \underline{8} \\
 66 \\
 \underline{64} \\
 2 \\
 (2)
 \end{array}$$

Many times the dividend cannot exactly be divided by the divisor, but something will remain; as in the last example; where 946 was given to be divided by 8, the quotient was 118, and there remaineth 2 after the division is ended. Now what is to be done in this case with the remainder, the learner shall be taught when we come to treat of the reducing (or reduction) of fractions.

And here note, that if, after your division is ended, any thing do remain, it must be less than your divisor; for otherwise your work is not rightly performed.

Other examples are as follow.

$$\begin{array}{r}
 8 \overline{) 73464} \quad (9183 \\
 \underline{00} \\
 72 \\
 \underline{64} \\
 8 \\
 \underline{6} \\
 24 \\
 \underline{24} \\
 0 \\
 (0)
 \end{array}$$

$$\begin{array}{r}
 9 \overline{) 13758} \quad (1528 \\
 \underline{00} \\
 9 \\
 \underline{47} \\
 45 \\
 \underline{25} \\
 18 \\
 \underline{78} \\
 72 \\
 \underline{72} \\
 0 \\
 (6)
 \end{array}$$

But

5. But if the divisor consisteth of more places than one, then chuse so many figures from the left side of the dividend for a dividual as there are figures in the divisor; and put a point under the farthest figure of that dividual to the right hand, and seek how often the first figure on the left side of the divisor is contained in the first figure on the left side of the dividual, and place the answer in the quotient, and thereby multiply your divisor, placing your product under your dividual, and subtract it therefrom, placing the remainder below the line. Then put a point under the next figure in the dividend, and draw it down to the said remainder and annex it on the right side thereof, which makes a new dividual; and proceed as before, till the work is finished.

And if it so happen, that, after you have chosen your first dividual, as is before directed, you find it to be less than the divisor; then put a point under the figure more near to the right-hand, and seek how often the first figure on the left side of the divisor is contained in the two first figures on the left side of the dividual, and place the answer in the quotient; by which multiply the divisor, and place the product thereof in order under the dividual, and subtract it therefrom, and then proceed as before.

Always remembring, that in all cases of division, if, after you have multiplied your divisor by the figure first placed in the quotient, the product be greater than the dividual, then you must cancel that figure in the quotient, and, instead thereof, put a figure less by an unit, (or one), and multiply the divisor thereby; and if still the product be greater than the dividual, make the figure in the quotient yet less by an unit. And thus do, until your product be less than the dividual, or at the most equal thereto, and then make subtraction, &c.

So, if you would divide 9464 by 24, the quotient will be found to be 394. I first put down the given number, as is before directed in the third rule.

Now, because my divisor consisteth of two figures, I therefore put a point under the second figure from the left hand of my dividend, which here is 4; wherefore I seek how often 2 (the first figure on the left-side

$$\begin{array}{r}
 24 \overline{) 9464} \\
 \underline{72} \\
 22
 \end{array}$$

of

of the divisor) is contained in 9, (the like first in the dividend); the answer is 4; which I put in the quotient, and thereby multiply all the divisor, and find the product to be 96, which is greater than the dividend 94: wherefore I cancel the 4 in the quotient, and, instead thereof, I put 3, (an unit less), and by it multiply the divisor 24, and the product is 72; which I subtract from 94 the dividend, and the remainder is 22. Then do I make a point under the next figure 6 in the dividend, and draw it down, and place it on the right side of the remainder 22, and it makes 226 for a new dividend. Now, because the dividend 226 consisteth of a figure more than the divisor, therefore I seek how often 2 (the first figure of the divisor) is contained in 22, the two first of the dividend: I say 9 times: wherefore I put 9 in the quotient, and thereby multiply the divisor 24; the product (216) I place under the dividend 226, and subtract it from it, and there remaineth 10.

$$\begin{array}{r}
 24) 94\overset{.}{6}4 \quad (39 \\
 \underline{216} \\
 10
 \end{array}$$

Then I go on, and make a point under the next and last figure (4) in the dividend, and draw it down to the remainder 10, and it makes 104 for a new dividend: which is also a figure more than the divisor; and therefore I seek how often 2 is contained in 10: I answer 5 times. But multiplying my divisor by 5, the product is 120; which is greater than the dividend: and therefore I make it but 4; and by it multiply the divisor; and the product is 96; which being placed under, and subtracted from the dividend, there remaineth 8. And thus the whole work of this division is ended; and I find, that 9464 being divided by 24, or into 24 equal parts, is found to be 394, as was said before, and the remainder is 8; as you see in the work on the margin.

$$\begin{array}{r}
 24) 94\overset{.}{6}4 \quad (394 \\
 \underline{216} \\
 104 \\
 \underline{96} \\
 (8)
 \end{array}$$

Another example may be this. Let there be required the quotient of 1183653 divided by 385. First I dis-

M

pose

pose of the numbers, in order to their dividing; and because 118, the three first figures of the dividend, is less than the divisor 385, I therefore make a point under the fourth figure, which is 3, and see how often 3 (the first figure of the

$$\begin{array}{r} 385) 1183653 (3 \\ \underline{1155} \\ 28 \end{array}$$

divisor) is contained in 11: the answer is 3; which I put in the quotient, and thereby multiply the divisor 385, and the product is 1155; which I subtract from the dividend 1183, and there remains 28. Then (as before) I draw down the next figure, which is 6, and place it before the remainder 28: so have

I 286 for a new dividend; and because it hath no more figures than the divisor, I seek how often 3 (the first figure in the divisor) is contained in 2, (the first figure of the dividend), and the

$$\begin{array}{r} 385) 1183653 (30 \\ \underline{1155} \\ 286 \end{array}$$

answer is 0; for a greater number cannot be contained in a lesser; wherefore I put 0 in the quotient: and thereby (according to the 5th rule) I should multiply my divisor; but if I do, the product will be 0; and 0 subtracted from the dividend 286, the remainder is the

same. Wherefore I draw down the next figure (5) from the dividend, and put it before the said remainder 286: so have I 2865 for a new dividend; and because it consisteth of four places, viz. a place more than the divisor, I seek how often 3 (the first figure of the divisor) is contained in 28

$$\begin{array}{r} 385) 1183653 (307 \\ \underline{1155} \\ 2865 \\ \underline{2695} \\ 170 \end{array}$$

(the two first of the dividend); and I say, there is 9 times 3 in 28; but multiplying my whole divisor (385) thereby, I find the product to be 3465, which is greater than the dividend 2865: wherefore I chuse 8, which is less by an unit than 9; and thereby I multiply my divisor 385, and the product is 3080; which still is greater than the said dividend: wherefore I chuse another number yet an unit less, viz. 7, and having multiplied my divisor thereby, the pro-

duct

duct is 2695; which is less than the dividual 2865: wherefore I put 7 in the quotient, and subtract 2695 from the dividual 2865, and there remains 170. Then I draw down the last figure (3) in the dividend, and place it before the said remainder 170, and it makes 1703 for a new dividual. Then (for the reason above said) I seek how often 3 is contained in 17: the answer is 5; but multiplying the divisor thereby, the product is 1925, greater than the dividual: wherefore

$$\begin{array}{r}
 385) 1183653 \quad (3074 \\
 \underline{0000} \\
 1155 \\
 \underline{0000} \\
 2865 \\
 \underline{0000} \\
 2695 \\
 \underline{0000} \\
 1703 \\
 \underline{0000} \\
 1540 \\
 \underline{0000} \\
 (163)
 \end{array}$$

I say it will bear 4, an unit less, and by it I multiply the divisor 385; and the product is 1540, which is less than the dividual; and therefore I put 4 in the quotient, and subtract the said product from the dividual, and there remaineth 163. And thus the work is finished; and I find that 1183653 being divided by 385, or into 385 equal shares or parts, the quotient, or one of those parts, is 3074; and besides there is 163 remaining.

And thus the Learner being well versed in the method of the foregoing examples, may be sufficiently qualified for the dividing of any greater sum or number, into as many parts as he pleaseth; that is, he may understand the method of dividing by a divisor which consisteth of 4, or 5, or 6, or any greater number of places; the method being the same with the foregoing examples in every respect.

Other examples in division.

$$27986) 835684790 \quad (29860196374) \quad 473986018 \quad (2413$$

$$\begin{array}{r}
 55972 \\
 275964 \\
 251874 \\
 \hline
 240907 \\
 223888 \\
 \hline
 170199 \\
 167916 \\
 \hline
 \text{Remains } (22830)
 \end{array}$$

$$\begin{array}{r}
 292748 \\
 812380 \\
 785496 \\
 \hline
 268841 \\
 196374 \\
 \hline
 724678 \\
 589122 \\
 \hline
 \text{Remains } (135556)
 \end{array}$$

So

So if you divide 47386473 by 58736, you will find the quotient to be 806, and 45257 will remain after the work is ended.

In like manner, if you would divide 3846739204 by 483064, the quotient will be 7963, and the remainder after division will be 100572.

When the divisor is 3, 4, 5, 6, or more Figures, there is a sure and easy way of performing the work truly, by making a table of the divisor; which may be done by addition, or by multiplying the divisor by 2, 3, 4, &c.

Admit you are to divide 987654321 by 123456

123456) 987654321 (8000

987648...

6321

Here having noted the number of Figures in the divisor, which here is six, I make a point under the seventh figure, or place of the dividend, &c.

1 123456

2 246912

3 370368

4 493824

5 617280

6 740736

7 864192

8 987648

9 IIIII04

This table is made by doubling the first line, which is 246912, which added to the first or uppermost line gives the third line 370368, which also added to the said first line makes 493824 for the fourth line or product; and so of the rest, still remembring to add the subsequent line or product to the first or uppermost line, till you come to the last line of 9 times, which is IIIII04. The truth of which may be proved by multiplying the first or uppermost line by 2, 3, 4, 5, &c. and if you commit an error by addition it may be found out, or corrected by multiplication.

The Use of the said table.

When you have pointed out your number of places in the dividend, cast your eye on the table, and at the first view you may know how many times you can take; as in this example, 7 times is too little, and 9 times too much, wherefore I set down 8 in the quotient, and then multiply and subtract, and the remainder is 6; to which I bring down 3, and put 0 in the quotient; then to the 63 I bring down 2, and place another 0 in the quotient; then to 632 I bring down 1, the last figure of the dividend; but still it will not bear any time or times, wherefore I put another 0 in the quotient; and so the work is done, and the quotient is 8000, and the remainder 6321; as in the work.

ABBREVIATIONS.

(1st.) If there are any cyphers on the right hand of your divisor, you may cut off so many cyphers, or figures, on the right hand of your dividend; but remember to bring them down (if figures) to the remainder.

EXAMPLE.

$$2100)8645129(411$$

84

24

21

35

21

1429

(2^{dly}.) By the foregoing rule, you may observe, that to divide by 10, 100, 1000, &c. is only to cut so many figures from the right hand of the dividend, as there are cyphers in the divisor.

EXAMPLE.

$$1000)436821735)$$

So the quotient is 43682, the remainder 735!

(3^{dly}.) When your divisor is 12, or consists only of one single figure, or can be reduced to one, by cutting off

M 3

off cyphers from its right hand, the work may be easily performed in one line, thus :

RULE.

Drawing a line under the dividend, set down under its first figure, how often the divisor is contained in it; what remains imagine placed before the next figure; and, considering how often your divisor is contained in the sum it makes, set down the number underneath, as before; and so proceeding thro' all the figures, set down what remains at last, in the place where your quotient used to stand.

EXAMPLES.

$$\begin{array}{r} 4 \overline{)93645(1} \\ 23411 \end{array}$$

$$\begin{array}{r} 12 \overline{)83675(11} \\ 6972 \end{array}$$

$$\begin{array}{r} 7 \overline{)1005635(15(} \\ 805 \end{array}$$

If you are to divide several numbers by one common divisor (as in the calculating of tables, &c.) that you may know exactly at once how oft'n your divisor will go, in some convenient corner make a table of your divisor, by multiplying it severally by all the nine digits: thus, suppose 562 your divisor:

562	1
1124	2
1686	3
2248	4
2810	5
3372	6
3934	7
4496	8
5058	9

Proofs of Division.

(1st.) Multiplication and division mutually prove each other: for as if you divide the product of a multiplication by the multiplier, the quotient will be the multiplicand; so, if you multiply the quotient of a division by the divisor, (taking in the remainder) the product will be the dividend.

(2^{dly}.)

(2dly.) Another proof of division is, by adding together those lines in the following example, marked with asterisks (being the particular products of the divisor, multiplied severally by each figure in the quotient, together with the remainder of the division) the total of which (if right) will be the dividend.

(3dly.) Division may also be proved as multiplication, by a cross, thus; casting out the nines from the divisor and quotient, place the remainders on its right and left sides; then multiplying the two figures so placed together, and casting the nines from the product, add what's left to the remainder of the division; and still casting out the nines, let the overplus be placed at the top; then also casting the nines from the dividend, set down the figure remaining at the bottom, which if it agrees with that at top, the work may be supposed right. See each proof in the following

E X A M P L E.

$\begin{array}{r} 3 \\ 7 \overline{) 2} \\ 3 \\ \hline 3d \text{ Proof} \end{array}$	$\begin{array}{r} 736(863256(\\ \underline{736*} \\ 1272 \\ \underline{736*} \\ 5365 \\ \underline{5152*} \\ 2136 \\ \underline{1472*} \\ 664* \\ \hline 863256 \text{ 2d Proof.} \end{array}$	$\begin{array}{r} 1172 \\ \underline{736} \\ 7032 \\ 3516 \\ \hline 8204 \\ 862592 \\ \hline 664 \text{ Remainder.} \\ \hline 863256 \text{ 1st Proof} \end{array}$
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R E D U C T I O N.

- I. **R**eduction is that which brings together two or more numbers of different denominations into one denomination; or it serveth to change or alter numbers, money, weight, measure, or time, from one denomination to another; and likewise to abridge fractions to the lowest terms: all which it doth so precisely, that
the

the first proportion remaineth without the least jot of error or wrong committed: so that it belongeth as well to fractions as integers; of which in its proper place. Reduction is generally performed either by multiplication or division. From whence we may gather, That,

2. Reduction is either descending or ascending.

3. Reduction descending is, when it is required to reduce a sum or number of a greater denomination into a lesser, which number, when it is so reduced, shall be equal in value to the number first given in the greater denomination: as if it were required to know how many shillings, pence, or farthings, are equal in value to an hundred pounds? or, how many ounces, are contained in 45 hundred weight? or, how many days, hours, or minutes, there are in 240 years? &c. And this kind of reduction is generally performed by multiplication.

4. Reduction ascending is, when it is required to reduce or bring a sum or number of a smaller denomination into a greater, which shall be equivalent to the given number: as suppose it were required to find out how many pence, shillings, or pounds, are equal in value to 43785 farthings? or, how many hundreds are equal to (or in) 3748 pounds, &c. And this kind of reduction is always performed by division.

5. When any sum or number is given to be reduced into another denomination, you are to consider whether it ought to be resolved by the rule descending or ascending, viz. by multiplication, or division. If it be to be performed by multiplication, consider how many parts of the denomination into which you would reduce it, are contained in an unit or integer of the given number, and multiply the said given number thereby, and the product thereof will be the answer to the question. As, if the question were, In 38 pounds how many shillings? here I consider, that in 1 pound are 20 shillings, and that the number of shillings in 38 pounds, will be 20 times 38; wherefore I multiply 38 £ . by 20, and the product is 760, and so many shillings are contained in 38 pounds; as in the margin.

$$\begin{array}{r} 38 \\ 20 \\ \hline 760 \end{array}$$

But when there is a denomination or denominations between the number given and the number required, you

you may, if you please, reduce it into the next inferior denomination, and then into the next lower than that, &c. until you have brought it into the denomination required. As for example: let it be demanded, In 132 pounds how many farthings? First, I multiply 132 (the number of pounds given) by 20 to bring it into shillings, and it makes 2640 shillings. Then do I multiply the shillings 2640 by 12 to bring them into pence, and it produceth 31680, and so many pence are contained in 2640 shillings, or 132 pounds. Then do I multiply the pence, *viz.* 31680 by 4 to bring them into farthings, (because 4 farthings is a penny) and I find the product thereof to be 126720, and so may farthings are equal in value to 132 pounds. The work is manifest in the margin.

$$\begin{array}{r}
 132 \text{ pounds} \\
 20 \\
 \hline
 2640 \text{ shillings} \\
 12 \\
 \hline
 31680 \\
 2640 \\
 \hline
 31680 \text{ Pence} \\
 4 \\
 \hline
 126720 \text{ farthings.}
 \end{array}$$

6. And if the number propounded to be reduced is to be divided, or wrought by the rule ascending, consider how many of the given numbers are equal to an unit or integer in that denomination to which you would reduce your given number, and make that your divisor, and the given number your dividend; and the quotient thence arising will be the number sought or required. As for example: let it be required to reduce 2640 shillings into pounds. Here I consider that 20 shillings are equal to one pound; wherefore I divide 2640 (the given number) by 20, and the quotient is 132, and so many pounds are contained in 2640 shillings. In reduction descending and ascending, the learner is advised to take particular notice of the tables delivered in the former part of this book, where he may be informed what multipliers or divisors to make use of in the reducing of any number to any other

$$\begin{array}{r}
 \text{/.} \\
 20 \overline{) 2640} (132 \\
 \quad \dots \\
 \quad 2 \\
 \quad \hline
 \quad 6 \\
 \quad 6 \\
 \quad \hline
 \quad 4 \\
 \quad 4 \\
 \quad \hline
 \quad (0)
 \end{array}$$

ther denomination whatsoever, especially English monies, weights, measures, time, and motion. But in this place it is not convenient to meddle with foreign coins, weights, or measures.

But if in reduction ascending it happen that there is a denomination, or denominations between the number given and the number required, then you may reduce your number given into the next superior denomination; and when it is so reduced, bring it into the next above that; and so on, until you have brought it into the denomination required. As for example:

Let it be demanded, In 126720 farthings how many pounds? First I divide my given number (being farthings) by 4, to bring them into pence, (because 4 farthings make one penny); and there are 31680 pence. Then I divide 31680 pence by 12, and the quotient giveth 2640 shillings. And then I divide 2640 shillings by 20, and the quotient giveth 132 pounds; which are equal in value to 126720 farthings. See the whole work as it followeth.

	12)	210)	/.
4) 126720	(31680	(2640	(132
.....		,,	
12	24	2	
6	76	6	
4	72	6	
27	48	4	
24	48	4	
32	(0)	(0)	
32			
(0)			

7. When the number given to be reduced, consisteth of divers denominations, as pounds, shillings, pence, and farthings; or of hundreds, quarters, pounds, and ounces, &c. then you are to reduce the highest (or greatest) denomination into the next inferior, and add thereunto the number standing in that denomination, which your greatest or highest number is reduced to. Then reduce that

that sum into the next inferior denomination, adding thereto the number standing in that denomination. Do so until you have brought the number given into the denomination proposed. As, if it were required to reduce 48*l.* 13*s.* 10*d.* into pence: first I bring 48*l.* into shillings, by multiplying it by 20, and the product is 960 shillings; to which I add the 13 shillings, and they make 973. Then I multiply 973 by 12, to bring the shillings into pence, and they make 11676; to which I add the 10 pence, and they make 11686 pence for the answer. See the work done.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
	48	13	10
			20
		960	shillings
Add	13		
Sum	973	shillings	
		12	
		1946	
		973	
		11676	pence
Add		10	
Sum	11686	pence	

8. If in reduction ascending, after division is ended, anything remain, such remainder is of the same denomination with the dividend.

Example. In 4783 farthings, I demand how many pounds? View the following operation.

First, I divide the given number of farthings (*viz.* 4783) by 4, to bring them into pence, and the quotient is 1195 pence; and there remaineth 3 after the work of division is ended, which is 3 farthings.

		12)	210)	
4)	4783	(1195	(919	(4 pounds
		..		
	4	108	8	
	7	115	(19)	shillings
	4	108		
	38	Rem.	(7)	pence
	36			
	23	<i>Facit</i>	<i>l. s. d. grs!</i>	
	20	4	19	7

Again, I divide 1195 pence (the said quotient), by 12, to reduce them

Rem: (3) farthings

into

into shillings, and the quotient is 99 shillings; and there is a remainder of 7, which is 7 pence.

And then divide 99 shillings (the last quotient, by 20, to bring it into pounds, and the quotient is 4*l*. and there remaineth 19 shillings: so that I conclude that in 4783 (the proposed number of farthings) there is 4 pounds, 19 shillings, 7 pence, 3 farthings.

More examples in reduction of coin.

Quest. 1. In 438 *l*. how many shillings? *Facit* 8760 shillings; for multiplying 438 by 20, the product amounteth to so much. See the work.

$$\begin{array}{r} 438 \text{ pounds} \\ 20 \\ \hline \text{Facit } 8760 \text{ shillings} \end{array}$$

Quest. 2. In 467 *l*. how many pence? First multiply the given number of pounds (467) by 20, to bring it into shillings; and it makes 9340 shillings; then multiply the shillings by 12, and it produceth 112080 pence, thus.

$$\begin{array}{r} 467 \text{ pounds} \\ 20 \\ \hline 9340 \text{ shill.} \\ 12 \\ \hline 1868 \\ 934 \\ \hline \text{Facit } 112080 \text{ pence} \end{array}$$

Or it may be resolved thus, *viz.* Multiply the given number of pounds (467) by (240) the number of pence in a pound, and the product is the same, *viz.* 112080 pence; as by the operation appeareth.

$$\begin{array}{r} 467 \text{ pounds} \\ 240 \\ \hline 1868 \\ 934 \\ \hline \text{Facit } 112080 \text{ pence} \end{array}$$

Quest.

Quest. In 5673 *l.* how many farthings? First multiply the given number by 20, to bring it into shillings, and it produceth 113460 shillings; then multiply that product by 12, to bring it into pence, and it produceth 1361520 pence; then, lastly, multiply the pence by 4, and it produceth 5446080 farthings. See the operation.

$$\begin{array}{r}
 5673 \text{ pounds} \\
 \underline{20} \\
 113460 \text{ shillings} \\
 \underline{12} \\
 22692 \\
 11346 \\
 \underline{\hspace{1.5cm}} \\
 1361520 \text{ pence} \\
 \underline{4}
 \end{array}$$

Facit 5446080 farthings

Or this question might have been thus resolved, *viz.* Multiply 5673 (the given number of pounds) by 960 (the number of farthings in a pound), and it produceth the same effect; as you may see by the work.

$$\begin{array}{r}
 5673 \text{ pounds} \\
 \underline{960} \\
 34038 \\
 51057 \\
 \underline{\hspace{1.5cm}}
 \end{array}
 \qquad
 \begin{array}{r}
 20 \text{ shillings} \\
 \underline{12} \\
 240 \text{ pence} \\
 \underline{4}
 \end{array}$$

Facit 5446080 farthings

960 farthings

Otherwise thus: First, bring the given number 5673 *l.* into shillings, and multiply the shillings by 48, the number of farthings in a shilling, and the same effect is thereby likewise produced, *viz.*

$$\begin{array}{r}
 5673 \text{ pounds} \\
 \underline{20} \\
 113460 \text{ shillings} \\
 \underline{48} \\
 90768 \\
 45384 \\
 \underline{\hspace{1.5cm}}
 \end{array}
 \qquad
 \begin{array}{r}
 12 \text{ pence} \\
 \underline{4} \\
 48 \text{ farthings}
 \end{array}$$

Facit 5446080 farthings

These various ways of operation are expressed to inform the judgment of the learner with the reason of the rule. More ways may be shewn, but these are sufficient even for the meanest capacities.

Quest. In 458 *l.* 16*s.* 7*d.* 3*grs.* how many farthings? To resolve this question, consider the seventh rule, and work as you are there directed, and you will find the aforesaid given numbers to amount to 440479 farthings, *viz.*

	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>grs.</i>
	458	16	7	3
		20		
	9160			
Add		16		shillings
Sum	9176			shillings
		12		
	18352			
	9176			
	110112			
Add		7		pence
Sum	110119			pence
		4		
	440476			
Add		3		farthings
Sum	440479			farthings

This last question, or any other of this kind, *viz.* where the number given to be reduced consisteth of several denominations, may be more concisely resolved thus, *viz.* When you multiply the pounds by 20, to bring them into shillings, to the product of the first figure add the figure standing in the place of units in the denomination of shillings: but because the first figure in the

	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>grs.</i>
	458	16	7	3
		20		
	9176			shillings
		12		
	18359			
	9176			
	110119			pence
		4		
<i>Facit.</i>	440479			farthings. multiplier

multiplier is 0, I say, 0 times 8 is nothing, but 6 is 6, which I put down for the first figure in the product. Then, because the multiplier is 0, I go on no further with it; for if I should, the whole product would be 0; but proceed. And when I come to multiply by the second figure in the multiplier, to the product of it I add the figure standing in the place of tens in the denomination of shillings, which is 1; saying, 2 times 8 is 16 and (the said figure) 1 is 17. Then I set down 7, and carry the unit to the product of the next figure, as has been directed before. So that now you may have the whole product and sum of shillings at one operation, which is the same as before. And when you multiply the shillings by 12, to bring them into pence, after the same manner, add to the product the number standing in the denomination of pence; and so when you multiply the pence by 4, to bring them into farthings, add to the product the number standing under the denomination of farthings. See the last question thus wrought on the margin of the preceeding page.

Reduction of Troy weight.

We now come to give the learner some examples in troy weight; wherein we shall be brief, having given so large a taste of reduction in the former examples of coin. And now the learner must be mindful of the table of troy weight delivered in Addition.

Quest. In 482 lb. 7 oz. 13 pw. 21 grs. how many grains?

Multiply by 12, by 20, and by 24, taking in the figures standing in the several denominations, according to the directions, given formerly and you will find the product to be 2780013 grains, which is the number required, or answer to the question. See the whole work as followeth.

l. oz. pw. gr.
482—7—13—21

12

971
482

5791 ounces
20

115833 penny-weight
24

463333
231668

Facit 2780013 grains.

Quest. 14. In 2780013 grains, I demand how many pounds, ounces, penny-weights, and grains?

This is but the foregoing question inverted, and is resolved by dividing by 24, by 20, and by 12; and the answer is 482 lb. 7 oz. 13 pw. 21 gr.

	24	2780013	20	1158313	12	5791	l.	(482
						...		
	24		10		48			
	—		—		—			
	38		15		99			
	24		14		96			
	—		—		—			
	140		18		31			
	120		18		24			
	—		—		—			
	200		3	Rem.	(7) ounces			
	192		2					
	—		—					

81 Rem. (13) penny-weight

72

93

72

l. oz. pw. gr.
Facit 482—7—13—21

Remains (31) grains

Reduct.

Reduction of Avoirdupois weight.

In reducing Avoirdupois weight, the learner must have recourse to the table of avoirdupois weight delivered before.

Quest. In 47 C. 1 qr. 20 lb. how many ounces? multiply by 4, by 28, and by 16; and the last product will be the answer, viz. 84992 ounces.

$$\begin{array}{r}
 \text{C. qr. lb.} \\
 47 - 1 - 20 \\
 4 \\
 \hline
 189 \text{ quarters} \\
 28 \\
 \hline
 1512 \\
 380 \\
 \hline
 5312 \text{ lb.} \\
 16 \\
 \hline
 31872 \\
 5312 \\
 \hline
 \end{array}$$

Facit 84992 ounces

Quest. In 84992 ounces, I demand how many C. qrs. lb. and oz?

This is the foregoing question inverted; and will be resolved if you divide by 16, by 28, and by 4; and the answer is 47 C. 1 qr. 20 lb. equal to the given number in the foregoing question.

$$\begin{array}{r}
 \begin{array}{ccc}
 & 28) & 4) \\
 16) & 84992 & (5312 & (189 & (47 - 1 - 20 - 0 \\
 & \dots & \dots & \dots & \\
 & 80 & 28 & 16 \\
 \hline
 & 49 & 251 & 29 \\
 & 48 & 224 & 28 \\
 \hline
 & 19 & 272 & (1) \text{qr.} \\
 & 16 & 252 & \\
 \hline
 & 32 & (20) \text{pounds} \\
 & 32 & \\
 \hline
 & (0) & N 3
 \end{array}
 \end{array}$$

Reduc-

Reduction of liquid measure.

Quest. In 45 tun of wine, how many gallons?
Multiply by 4, and by 63; the product is 11340 gallons for the answer.

$$\begin{array}{r}
 45 \\
 \times 4 \\
 \hline
 180 \\
 \times 63 \\
 \hline
 54 \\
 108 \\
 \hline
 \end{array}$$

Facit 11340 gallons

Quest. In 34 rundlets of wine, each containing 18 gallons, I demand how many hogheads?

First, find how many gallons are in the 34 rundlets, which you may do if you multiply 34 by 18, the content of a rundlet, and the product is 612 gallons; which you may reduce into hogheads, if you divide them by 63, and the quote will be 9 hogheads, and 45 gallons. See the work.

$$\begin{array}{r}
 34 \\
 \times 18 \\
 \hline
 272 \\
 34 \\
 \hline
 63 \overline{) 612} \text{ (9 hhds.} \\
 \underline{567} \\
 45
 \end{array}$$

Remains (45) gallons

Facit 9 hhds, 45 gall.

Quest.

Quest. In 12 tuns, how many rundlets of 14 gallons per rundlet?

Reduce your tuns into gallons, and divide them by 14, the gallons in a rundlet, and the quotient (216) is your answer. See the work.

$$\begin{array}{r}
 12 \\
 4 \\
 \hline
 48 \\
 63 \\
 \hline
 144 \\
 288 \\
 \hline
 14) 3024 \text{ (216 rundlets)} \\
 \quad \dots \\
 \quad 28 \\
 \quad \hline
 \quad 22 \\
 \quad 14 \\
 \quad \hline
 \quad 84 \\
 \quad 84 \text{ Facit 216 rund.} \\
 \quad \hline
 \quad (0)
 \end{array}$$

Reduction of long measure.

Quest. I demand how many furlongs, poles, inches, and barley-corns will reach from London to York, it being accounted 151 miles?

151 miles
8 furlongs in a mile

1208 furlongs
40 poles in a furlong

48320 poles
11 half-yards in a pole

4832
4832

531520 half-yards
18 inches in a half-yard

425216
53152

9567360 inches
3 barley-corns in an inch

Facit 28702080 barley-corns in 151 miles

Quest. The circumference of the earth (as all other circles are) is divided into 360 degrees, and each degree into 60 minutes, which, upon the superficies of the earth, are equal to 60 miles; now I demand how many miles, furlongs, perches, yards, feet, and barley-corns, will reach round the globe of the earth?

360 degrees
60 minutes or miles in a degree

21600 miles about the earth
8 furlongs in a mile

172800 furlongs about the earth
40 perches in a furlong

6912000 poles or perches about the earth
11 half-yards in a perch

6912
6912

2)76032000 half-yards about the earth

(38016000 yards, viz. the half-yards di-
3 vided by 2

114048000 feet about the earth
12 inches in a foot

228096
114048

1368576000 inches about the earth
3 barley-corns in an inch

Facit 4105728000 barley-corns

And so many will reach round the world, the whole be-
ing 21600 miles. So that if any person were to go round,
and go 15 miles every day, he would go the whole cir-
cumference in 1440 days, which is 3 years, 11 months
and 15 days.

Reduction of Time.

Quest. In 28 years, 24 weeks, 4 days, 16 hours, 30
minutes, how many minutes?

Years.

Years. weeks. days. hours. minutes.

28—24—4—16—30

52 weeks in a year

60

142

1480 weeks

7

10364 days

24

41462

20729

248752 hours

60

14925150 minutes.

Note, That in resolving the last question after the method expressed, there are lost in every year 30 hours: for the year consisteth of 365 days and 6 hours; but by multiplying the year by 52 weeks, which is 364 days, you lose 1 day and 6 hours every year. Wherefore, to find an exact answer, bring the odd weeks, days and hours, into hours, and then multiply the years by the number of hours in a year, viz. 8766, and to the product add the hours contained in the odd time, and you have the exact time in hours; which bring into minutes, as before. See the last question thus resolved.

	<i>Days. hours.</i>	<i>Weeks. days. hours.</i>
28	365—6	24—4—16
8766	24	7
172	1466	172
172	730	24
197		
228	8766 hours in a year	694
		345
249592 hours		4144 hours
60		

14975520 minutes in 28 years and 4144 hours.

So

So you see, that, according to the method first used to resolve this question, the hours contained in the given time, are 248752; but according to the last, best, or truest method, they are 249592, which exceeds the former by 840 hours.

But for most occasions it will be sufficient to multiply the given years by 365; and to the product add the days in the odd time, if there be any, and then there will be only a loss of six hours in every year; which may be supplied by taking a fourth part of the given years, and adding it to the contained days, and you have your desire.

The Golden Rule; or, Rule of Three Direct,

IS so called from its extraordinary usefulness, not only in arithmetical questions, but in all parts of the mathematicks.

It is also called *the rule of three*, because there are always three numbers given to find out a fourth: and it is properly called *the rule of proportion*, because the first number bears such proportion to the second, as the third does to the fourth.

The design of this rule is, to shew how to find a fourth proportional number, by having three given numbers, which is deducible from the *sixteenth proposi.* of the *sixth book* of Euclid's *elements*.

The Rule is,

Multiply the second and third numbers together, and divide the product by the first number, and the quotient thence arising shall be the fourth number sought. Or,

Divide the second number by the first, and multiply the quotient by the third, and the product is the number required: for the fourth number contains the third, so often as the second contains the first. And this is called direct proportion.

All questions in this rule of three consist of three numbers, whereof two are always of one kind or denomination. As in this example.

If

If I give 10 s. for 5 yards, what shall I give for 15 yards at the same rate?

Now two of these are of the same kind, that is, the number of 5 and 15, which are both yards, which place thus. The number, concerning which the question is asked, must be in the third place.

Now in this question the 15 yards is the number, and the price of which the question requires the value; place it therefore in the third place.

Then seek out the other number of the same kind or denomination, which must be yards also, which in this question is 5; set this in the first place, and then the other number (that is 10 s.) will consequently claim the second place, and the answer to the question will be always of the same denomination with it, which here is, shillings.

Now the question stated according to the foregoing rule stands thus.

If 5 yards cost 10 s. what will 15 yards cost?

$$\begin{array}{r}
 15 \\
 \hline
 5) 150 \text{ (30)} \\
 \underline{15} \\
 00
 \end{array}$$

Multiply the second number by the third, and divide the product by the first.

Note, That the three numbers are 5, 10, 15.

Proof of the last question.

What shall I pay for 5 yards, when 15 yards are sold for 30 shillings?

If 15 yards costs 30 s. what will 5 yards cost?

$$\begin{array}{r}
 5 \\
 \hline
 15) 150 \text{ (10 s. Answer.)} \\
 \underline{15} \\
 00
 \end{array}$$

What

What is the interest of 75 pounds at the rate of 8 pounds per Cent. per annum?

The numbers will be stated thus :

L. P.	L. I.	L. P.
100	8	75

In this example there are two numbers that are principal money, and one that is interest ; therefore the interest (according to the rule) must stand in the middle, or second place ; the principal on which the interest dependeth, viz. 100 l. (8 l. being the interest thereof) must stand in the first place towards the left-hand, and the other principal on which the fourth number (which is the number sought for) dependeth, must possess the first place towards the right-hand.

By these rules foregoing, you may with ease and certainty perform any operation in direct proportion ; and for your further information take the examples following.

Example. If the interest of 100 l. for one year be 8 l. what is the interest of 75 l. for the same time ?

L. P.	L. I.	I. P.
100	8	75 8

100) 600 6 l. for answer.

Example. If 32 rundlets of brandy cost 96 l. what will 4 rundlets cost at that rate ?

Run.	l.	Run.
32	96	4
	4	

32) 384 (12 l. Answer

64

0 Remains
0

Ex.

Example. If 12 bags of cotton-wool cost 184l. what will 17 bags cost?

Bags	£	Bags	l.	s.	d.	
12	184	17	268	13	4	Answer.
	17					
	1288					
	184					

12) 3128 (260l.

..

72

8 Pounds remain

20 Shillings multiply

12) 160 (13 Shillings

40

4 Shillings remain

12 Pence multiply

12) 48 (4 Pence

0 Remains

Note, That as in the last example, when any thing remains that is reducible to a lower denomination, after it is so reduced, it must be divided continually by the first number.

Case.] When any of the three numbers given happen to be of divers denominations.

Rule.] You may reduce them into the lowest denomination. And if your first number require to be reduced, your third must be reduced likewise into the same denomination as the first: for the first and third number before you begin your operation, must be always of one name or denomination.

Example. If 17 hog sheads of sugar cost 320l. 12s. what will 5 of these hog sheads be worth?

Hhds.

Hhds l. s. Hhds
 17 320 12 5
 20

6412 Shillings } Multiply
 5 Hhds

17) 32060 (18815 (94 5 10 2 $\frac{6}{17}$

150

8

146

0 Remains

100

15 Shillings remain. } Multiply
 12 Pence in a Shilling.

30
 15

17) 180 (10 Pence
 10 Pence remain } Multiply
 4 Farthings in a Penny

17) 40 (2 Farthings

6 Farthings remain to be divided by 17.

Note, That when you have multiplied the second and third numbers together, and divided the product by the first, the quotient is of the same denomination as the second number is, after you have reduced it (as in the last example) into its lowest denomination given.

Example. If 4 C. 1 qr. 24 lb. of sugar cost 14l. what will 18 C. cost?

C.	qr.	lb.	l.	C.
4	1	24	14	18
4				18
42				18
45				18

500 lb. of sugar 2016 lb. of sugar } Multiply.
 14 l. Sterling. }

8064
2016

5100) 282124 (56 8 11 2 $\frac{40}{500}$ Answer.

32

224 Pounds remain } Multiply,
20 Shillings in 1 l.

5100) 44180 (8 Shillings.

480 Shillings rem. } Multiply.
12 Pence in 1 s.

960
48

5100) 57160 (11 Pence.

7

260 Pence remain. } Multiply.
4 Farthings in 1 d. }

5100) 10140 (2 Qrs.

40 Farthings remain to be divided
by 500

Note

Note farther, That what farthings remain to be divided by the common divisor, (as in the last example) because you can reduce them into no lower denomination, you may place them over your divisor, as fractions of a farthing, which shall be explained when we come to treat of vulgar fractions, &c.

Case.] When the first number of the three given, is but a unit, the operation is performed by multiplication only.

Example. If I give 15 s. for a pound of thred, what will 250 lb. cost me at that rate?

lb.	s.	lb.
1	15	250
	15	
	1250	
	250	

3750 s. answer, or 187l. 10s.

Example. At 14l. 10s. 6d. per bag of hops, what cost 55 bags?

Bag	l	s.	d.	Bags
1	14	10	6	55
	20			

290 Shillings
12

3486 Pence

55 the 3d number.

} Multiply.

17430

17430

191730 Pence Ans. or 798l. 17s. 6d.

Case.] When the third number of the three given (or that towards the right-hand) is a unit; such operation is performed by division only; if the number need no reducing.

Example. If 40 pieces of broad cloth cost 590l. what will one piece cost?

03

Pieces

Pieces	l.	Piece
40	590	1
	410)	5910 (14 $\frac{1}{4}$ l. or 14 l. 15 s.
		Answer.

 19

 30 Pounds remain.

If one bushel of rye cost 3s. 6d. what will a last, or 10 quarters cost after that rate?

First reduce the 3 s. 6 d. into pence, that is 42 d. and the 10 quarters into bushels, that is 80, and set the question thus.

If 1 bushel cost 42d. what will 80 bushels cost?

80

 3360

The first number (or place being 1) will neither multiply nor divide, then bring the 3360d. into shillings by dividing by 12, as following.

12) 3360 (280 Shillings.

24

 96

 96

 0

14 l.

20

210) 2810 (14 l.

20

 80

 80

 0

 —

For the proof of this, and the like questions, reduce the answer into pence, to know whether your work be right, as appears in the work.

 280

 12

 3360

If I paid 432l. for 525 quarters of malt, what is the price of 1 quarter after that rate?

Which

Which being stated stands thus:

If 525 quarters cost 432*l.* what will 1 quarter cost?

In this question you cannot multiply the second number by the third, because the third number (or place) is but one.

Therefore to perform this question with ease, reduce 432*l.* into farthings by reduction, which makes 414720 farthings to be divided, which divide by 525, the quarters of malt and the quotient, the answer, is 789 farthings; the remainder after the division is ended, are but the parts of a farthing.

Easily, The 789 farthings being reduced, are 16*s.* 5*d.* $\frac{1}{4}$. Therefore, if 525 quarters of malt (or tods of wool or goods) be sold for 432*l.* one quarter will cost 16*s.* 5*d.* $\frac{1}{4}$. after that rate. Or which is better, reduce the 432*l.* into shillings, and it gives 8640, which divide by 525, and the quotient is 16, and the remainder 240, which multiply by 12 the product is 2880, which divide by 525 the quotient is 5 pence, and the remainder 255: that multiplied by 4, and the product 1020 divided as before, gives 1 farthing, and $\frac{495}{525}$ parts of another farthing.

If a grocer bought 4 C. $\frac{3}{4}$ weight of nutmegs, which cost him 16*l.* 13*s.* 8*d.* how may he sell 1*lb.* weight without gain or loss?

Reduce the money into pence, it makes 39284*d.* for the dividend, and 5 C. $\frac{3}{4}$ weight into pound weight, by reduction, makes 644 pound weight for the divisor; then divide the 39284 by 644, and the quotient gives 61 pence, the price of one pound, viz. 5*s.* 1*d.*

Note That what sum of money you desire to gain, add it to the price, and work as above, to know what the price of one pound will be, so will you know what you get by every single pound.

Suppose the yearly rent of 20*l.* belonged to 7 landlords.

Reduce the 20*l.* into farthings, and they are 19200, which divide by 7, the quotient gives 2742 farthings $\frac{6}{7}$ for each landlord, from which you may subtract the taxes.

By the same rule you may draw a Composition of debts; for if a man owe to several creditors, as suppose it comes to in all 25*l.* 16*s.* reduce it into farthings, and divide it by the number of pounds owing, &c. as,

Suppose

Suppose a man leaveth 13l. To the first 3 12 2 2
 to pay his debts, and he owes — Second 4 07 8 0
 one man 5l. the second 6l. and — Third 5 01 1 2
 the third 7l. which makes 18l
 what is each man's share? 13 00 0 0

If 28 Quarters of barley cost 30l. 10s. 6d. tell me what
 84 quarters come to at that rate?

28 Qrs cost 30l. 10s. 6d. what will 84 qrs cost?

20 Shillings 610 12 1226 610 Pence 7326 84 29304 58608 Sum 615384 	12 28) 615384 (21978 pence. 56 210) 18211—6 55 28 £ 91 11 6 273 252 218 196 224 224 00
---	--

84 Qrs come to 91l. 11s. 6d.

20 1831 12 21978	For a proof I reduce the } 91l. 11s. 6d. into pence. } 3668 1831 21978
---------------------------------------	--

How many yards of cloth shall I buy for 21l. 10s.
 2 ½ d. when 3 ½ are sold for 2l. 14s. 3d?

First, reduce the 2l. 14s. 3d. into farthings, which
 make 2604, for the first number; next, the 3 yards and
 an

an half into quarters, which make 14 for the second number, and the 21*l.* 10*s.* 1*d.* $\frac{1}{2}$ and it makes 20646 farthings; then multiply that by 14, and the product is 289044, to be divided by 2604, and the quotient gives 111 quarters of yards, to divide by 4, (the quarters in a yard) and the quotient is 27 yards $\frac{3}{4}$, viz. 3 quarters, answer

Thus stated being reduced.

Farthings	Quarters	Farthings
2603	14	20646
		14.

If one pound of iron cost 3 pence half-penny, what will 7*C.* 3*qrs.* 17*lb.* cost?

4

31 quarters of hundreds.
28 pounds in a $\frac{1}{4}$ of an hundred.
take in 17*lb.*

255
63

pounds 885 in 7*C.* 3*qrs.* 17*lb.*
14 farthings in 3*d.* $\frac{1}{2}$

3540
885

4) 12390 farthings answer

12) 3097 $\frac{5}{2}$

210) 2518 $\frac{1}{2}$

answer £. 12 18 1 $\frac{1}{2}$

Note, That this example may serve for a rule to reduce hundreds, quarters, and pounds into pounds; but most tradesmen set the weights in short, thus, 7 - 3 - 17 instead of setting them as above 7 *C.* 3 *qrs.* 17 *lb.*

Besides, this way of proof, of reducing the total to farthings again, is most necessary for young learners, in most of the questions in the rule of three.

The

The Indirect Rule of Three.

IN the *indirect rule of three*, the numbers are in reciprocal proportion, that is, the fourth number to be found, is to bear the same ratio to the second as the third does to the first, but in an inverted order; that is, the greater the third term is in respect to the first, the less must the fourth be in respect to the second.

This rule differs, in its operation, from the direct, in that, after the question is stated, and the numbers of the statings prepared (as in the direct rule) your first and second must be multiplied together, and your third number be your divisor. The quotient, as before, will be the answer.

EXAMPLES.

(*Ex. 1st.*) What number of men must be employed, to finish, in 12 days, what 43 men would be 35 days about?

<i>days.</i>	<i>men.</i>	<i>days.</i>
If 35	— 43 —	12
	43	
	—	
	105	
	140	
	—	
12)	1505	
	—	

Answer, 125 men.

(*Ex. 2d.*) How many yards of stuff 3 *qrs.* wide, will hang a room which requires 420 yards of 5 *qrs.* wide?

<i>qrs.</i>	<i>yards.</i>	<i>qrs.</i>
If 5	— 420 —	3
	5	
	—	
	3) 2100 (	
	—	
<i>Answer,</i>	700	

The

The reason of this operation will appear plain (after what has been said in the direct rule) by considering the last example. Now it is clear, that if of the stuff, being 5 quarters wide, there are 420 yards required, then were the stuff but 1 quarter wide, 5 times 420 yards, *viz.* 2100 yards must be allowed; consequently, if the stuff be 3 quarters wide, one third part of those yards will be sufficient; therefore 2100 divided by 3, will give the true answer required, *viz.* 700 yards.

To know whether a question belongs to the Direct or Indirect Rule of Three.

Observe, If the third number, being more than the first number, requires more, or, being less, requires less, it is *Direct*; but if the third number, being more, requires less, or being less, requires more, it is *Indirect*.

Or, without any regard to the distinction of *Direct* and *Indirect*; if *more* is required, let the lesser of the two extremes be the divisor, if *less*, the greater.

More Questions in the Indirect Rule of Three.

If I lend *A* 136*l.* for 3 months, how long must I keep 42*l.* of his, to requite myself?

Answer, 9 months, 2 weeks, 6 days.

If 46 clerks in 32 days finish a piece of writing, in what time would 55 clerks accomplish the same?

Answer, 26 days, 9 hours, 9 minutes.

A garison, consisting of 1539 men, being besieged, hath provisions only for 12 days; but it being necessary they should hold out 3 weeks, how many men must be sent out?

Answer, 660 men.

The

The Double Rule of Three.

Questions in this rule have five numbers proposed, and are frequently answered by two statings, tho' they may be performed by one, as shall be shewn hereafter.

EXAMPLES.

(*Ex. 1st.*) The carriage of 32 hundred weight 56 miles comes to 12*s*. After the same rate, what must I pay to have 78 hundred weight carried 94 miles?

	<i>G.</i>	<i>s.</i>	<i>G.</i>
First, If 32	12	78	
		12	
		— <i>s. d.</i>	
		32)936(29 3 <i>facit.</i>	
		64	
		—	
		296	
		288	
		—	
		8	
		12	
		—	
		32)96(3	
		96	
		—	
		0	
		—	
		12)589(1	
		—	
		210)419	
		—	
		Answer, 2 <i>l.</i> 9 <i>s.</i> 1 <i>d.</i>	

<i>Miles.</i>	<i>s. d.</i>	<i>Miles.</i>
Then, If 56	29 3	94
	12	
	—	
	351	
	94	
	—	
	1404	
	3159	
	—	
	56)32994(589	
	280	
	—	
	499	
	448	
	—	
	514	
	504	
	—	
	10	

Note,

Note, The solution had been the same, if the miles had been made first and third numbers of the first stating; and the *C.* weights the first and third numbers of the last.

Note also, this example may be done by one stating, thus:

<i>C.</i>	<i>s.</i>	<i>C.</i>
If 32	12	78
56 Miles.		94 Miles.
192		312
160		702
1792		7332
		12
	<i>s. d.</i>	
	1792)87984(49 - 1	
	7168 or	
	<i>l. s. d.</i>	
	16304 2-9-1	
	16128	
	•• 176	
	12	
	1792)21112(11	
	1792	
	• 320	

(*Ex. 2d.*) How many men must be employed to reap 420 acres in 17 days, if there were required 37 men to reap 54 acres in 5 days?

	Acres.	Men.	Acres.
First, If	54	37	420
			37
			2940
			1260
Then, If	Days.	Men.	Days.
5	287	17	54
	5		15540
			108
			474
			432
			420
			378
			42
Ans. 84 Men.	7		

Note, If you would work such questions of the Double Rule of Three as have one of their proportions indirect, by one stating; you must multiply the third number of your stating, by that number you would otherwise have placed under your first; and your first number by that you would have placed under the third; as in the following example.

EXAMPLE.

Acres.	Men.	Acres.	
If 54	37	420	The number of days which have relation to the 54 acres.
* 17		5	
378		2100	
54		37	
918		14700	
		6300	
			Men.
* The number of days which have relation to the 420 a- cres.	918	77700	(84 answer as before.
		7344	
		4260	
		3672	
		588	

Of EXCHANGE.

HAVING explained the nature of the *rule* of three, and the manner of resolving questions therein, I am naturally led to treat of its particular use in the exchange of coins.

In the exchange of coins, it is necessary that the *par* or value of the money in each place be exactly known: for the word *par* signifies to equalize the money of exchange from one place with that of another place. As when I take up so much money *per* exchange in one place, to pay the just value thereof in another kind of money, in another place, without having respect to the price current of exchange for the same, but only to what the money does currently pass for in each place. From whence may be easily found out the profit and loss of all monies drawn, or remitted by exchange. But this *par* being grounded principally upon the current value of coin, the plenty and scarcity thereof, the rising and falling, enhancement and debasing of the same, it must necessarily follow, that the value of coin is subject unto change. An example whereof you have in *France*, where their coin has been changed, enhanced, and lowered, for several times in a few years; and in the year 1720, the *French* crown, which was 60 sous or 3 livres, is now raised to 75 sous, or 3 livres 15 sous.

The denomination in which England, and the following places exchange each with other, are, viz.

The exchange of monies from *London* to *Antwerp*, *Amsterdam*, *Hamburgh*, *Lisle*, *Middleburgh*, and other parts of *Flanders* and *Holland*, is valued on the pound sterling of 20 shillings: that is, to pay after the rate of so many shillings and pence *Flemish*, for every pound sterling.

The exchange from *London* to *Paris*, *Roan*, and most parts of *France*, is valued on the *French* crown at 54*d.* that is, to pay so many pence, or so many shillings and pence sterling, for the *French* crown.

The exchange from *London* to *Venice* is made on the ducat at 52*d.* sterling, to pay so many pence and parts of a penny sterling for every ducat.

The exchange from *London* to *Leghorn*, *Genoa*, *Cales*, *Madrid*, and other parts of *Spain*, is made on the dollar or piece of eight, at 54*d*. sterling, that is, to pay so many pence or parts of a penny sterling for every dollar.

The par at *Antwerp*, *Amsterdam*, *Hamburgh*, *Lisle*, *Middleburgh*, and other parts of *Flanders*, with one pound sterling, is thirty three shillings four pence *Flemish*, for a pound sterling; which thirty three shillings four pence do make 10 guilders at two shillings sterling the guilder, or 10 livres *Turnois*.

The par at *Paris*, *Roan*, and other parts of *France*, has been reckoned sometimes at 71 sous the crown of 3 livres, *Tournois*, generally at 60 sous the crown of 3 livres, every livre valued at 1 shilling sixpence sterling, the crown valued 4*s* 6*d* sterling.

The par at *Leghorn*, *Madrid*, *Cales*, *Genoa*, is at 54 pence sterling for the dollar or piece of eight.

The par at *Venice* with our sterling money is at 6 livres, 4 sous of *Venice* per ducat, or 51 pence sterling, sometimes 52 pence.

The *Hamburgh* par is sometimes reckoned at 4 rix dollars and a half, which makes 32 shillings *Flemish* for 20 shillings sterling.

The par at *Lisbon* is at 6*s* 8½*d* on the milrea or 1000 reas.

The par at *Oporto* is the same as that at *Lisbon*.

The value of the most usual coins with which England does chiefly exchange, are, viz.

	Sterling money.	
	s.	d.
<i>Holland and Flanders.</i> { 1 Stiver is — — — — — 0 - 1 ½		
6½ Stivers of 1 Shilling <i>Flemish</i> is — — — — — 0 - 7 ½		
1 <i>Flemish</i> Shilling — — — — — 1 - 8		
20 Stivers is 1 Guilder, or — — — — — 2 - 0		
6 Guilders 1 Pound <i>Flem.</i> 20 <i>s.</i> is — — — — — 12 - 0		
33 Shillings 4 <i>d.</i> <i>Flemish</i> is — — — — — 20 - 0		
1 <i>Zeland</i> common Dollar is — — — — — 3 - 0		
1 Duccatoon — — — — — 5 - 6		
1 Specie Dollar — — — — — 5 - 0		
	Sterling	

		Sterling money.	
		s.	d.
France.	12 Deniers, or 1 Soluz is	—	— 0—3 $\frac{1}{2}$
	20 Soulz, or Livre is	—	— 1—6
	3 Livres, or a French Crown	—	— 4—6

		Sterling money.	
		s.	d.
Spanish money	13 $\frac{77}{100}$ Malvadees	—	— 0—0 $\frac{1}{2}$
	372 Malvadees, or 1 Royal	—	— 0—6 $\frac{1}{4}$
	7 $\frac{1}{2}$ Royals is 1 Ducat	—	— 4—4
	8 Royal or peice of copper	—	— 4—6
	1 Royal copper	—	— 3—0 $\frac{1}{8}$
	17 $\frac{1}{2}$ ditto copper is 1 piece of 8, or	—	— 4—6

		Sterling money.	
		s.	d.
Portug.	12 $\frac{1}{2}$ Reas of Portugal	—	— 0—1
	1 Milrea, or 1000 Reas	—	— 6—8 $\frac{1}{2}$
	1 Testoon is	—	— 1—3

		Sterling money.	
		s.	d.
Italy.	1 Livre at Leghorn is	—	— 0—9
	1 Crown current at Florence is	—	— 5—3
	1 Ducat du Banco at Venice	—	— 4—4
	1 St. Mark	—	— 2—10
	1 Palermo Florin is	—	— 2—6

		Sterling money.	
		s.	d.
Germany.	1 Rix-dollar of the Empire	—	— 4—5 $\frac{1}{4}$
	4 $\frac{1}{2}$ Rix-dollars make 32 Flem. at Hamburgh, &c.	—	— 20—0
	1 Guilder of Noremburgh is	—	— 7—1

A merchant in London remits to Rotterdam 375l. 10s. sterling, at 34s. 8d. for 20 shillings sterling, How many Guilders Flemish must be paid at Rotterdam, and what is gained per exchange?

s.	s.	d.		l.	s.	d.
20	—	34	8 <i>Flem.</i>	what	375	— 10 — 0
		12			20	
	416				7510	
					416	
					45060	
					7510	
					30040	

Guilders. Stivers. 210 31241610

Ans. 3905 — 4 2) 156208

210 781014

3905

To find the gain or loss in one pound, subtract 33 s. 4 d. out of 34 s. 8 d. the course of exchange, the difference is 1 s. 4 d. *Flemish* per pound, and so much gain is the course of exchange in our favour.

If the course of exchange be under par, it must by parity of reason become a loss to us, and then the course of exchange is to our prejudice.

The like is to be observed for the coins exchanged in all other countries.

I will give but one example of loss by exchange, by which, with the foregoing example of gain, the ingenious may with ease, travel through the general course of exchange with all countries.

A merchant in *London* remits a bill of exchange to *Amsterdam* for 297 l. 15 s. sterling, at 31 s. 3 d. *Flemish* for 20 s. sterling, I demand how much *Flemish* money was paid for the said bill at *Amsterdam*, and what is lost per pound by exchange.

s.	s.	d.	l.	s.
20	31	3	297	13 sterling.
<i>Guild. Shill.</i>				

Answer, 2791 — 8 paid, and
2 s. 1 d. *Flemish* per pound lost by
the exchange.

Arithmetical PROGRESSION

IS when a rank or series of numbers differ orderly from one another, by some common number.

To find the sum of any arithmetical progression, add the first and last numbers together, and multiply that sum by half the number of places, and that product is the sum. But if the number of places be odd, multiply the said number of places by half of the first and last added, and that product is the sum.

1, 2, 3, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

What the sum?

16 Last

1 First

17 Sum

8 Half of the number of places.

136 Sum of the whole.

Suppose a man hireth a room for a year, and agreeth to pay the first week 5d. the second week 9d. and for the third week 13d. so paying every week 4d. more until 52 weeks, or a year is finished, I demand what the rent will come to?

Answer 23 l. 3 s. 8 d.

Here you are to consider that the common increasing number is 4 d. so that the last week must amount to 51 times 4, added to the pay of the first week, which is 5d. then will the last week come to 209 pence, then work as in the example.

	51	12) 5564 (463s.
	4	48
Product	<u>204</u>	<u>76</u>
	5	72
Added	209 the last week	44
	5 the first week	36
Added	<u>214</u>	<u>8d.</u>
	26 half the weeks in the year	
	<u>1284</u>	210) 4613 (23l. 3s. 8d.
	428	
Pence	<u>5564</u>	

Geometrical PROGRESSION.

Suppose one fold 12 ells of cloth, to receive for the first ell 1d. the second 2d. the third 4d. and so doubling, what is paid for the 12 ells?

$$\begin{array}{r}
 0, 1, 2, 3, 4, 5, 6. \\
 1, 2, 4, 8, 16, 32, 64. \\
 \quad \quad \quad 32 \\
 \quad \quad \quad \hline
 \quad \quad \quad 128 \\
 \quad \quad \quad 192 \\
 \quad \quad \quad \hline
 \quad \quad \quad 2048 \\
 \quad \quad \quad \hline
 \quad \quad \quad 2
 \end{array}$$

Answer 4096 Pence

Note, That if this question had been for a farthing a button, or the like, the answer would have been farthings.

Suppose one fold a horse having 4 shoes, and every shoe 6 nails, to receive for the first nail 1 farthing, the second nail 2 farthings, the third nail a penny, and so doub-

doubling, how much is paid for the last nail, and the price of the horse? *Answer* 17476l. 5s.

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096.

$$\begin{array}{r}
 4096 \\
 \hline
 12288 \\
 18432 \\
 81920 \\
 \hline
 8388608 \\
 2 \\
 \hline
 \end{array}$$

Farthings 16777216

Or if this question had been of a coat sold at a barley-corn a button, and so doubling to 24 buttons (accounting 900 corns, to a pint) I divide the 16777216 by the 900 corns, the quotient gives about 11641 pints, which divide by 64, (the pints in a bushel) the quotient gives about 292 bushels, or about 36 quarters of barley for the coat.

The Rule of FELLOWSHIP or COMPANY

MAY fitly be divided into gain, loss, and time.
A general rule.

*As general stock to general profit bears,
So each man's stock in general profit shares.*

That is to say,

Every man's particular stock being added together, the total must be the first number in the rule of three, the gains the second, and every man's particular stock the third; as,

Suppose two bookfellers in company, Y. laid in 20 l. Z. laid in 40 l. whereby was gained 50 l. what is each man's part of the gain?

$$\begin{array}{r} \hline R. 20 \\ Z. 40 \\ \hline 60 \end{array}$$

If 60*l.* gain 50*l.* what will 20*l.* gain?

$$\begin{array}{r} 20 \\ 610 \overline{) 10010} \quad (16*l.* 13*s.* 4*d.*) \\ \underline{6} \\ 40 \\ \underline{36} \\ 4 \end{array}$$

If 60*l.* gain 50*l.* what will 40*l.* gain?

$$\begin{array}{r} 40 \\ 610 \overline{) 20010} \quad (33*l.* 6*s.* 8*d.*) \\ \underline{18} \\ 20 \\ \underline{18} \\ 2 \end{array}$$

<i>l.</i>	<i>s.</i>	<i>d.</i>
33	06	8
16	13	4
Proof	50	— —

Suppose two merchants make a stock, B. laid in 45*l.* and C. laid in 68*l.* whereby was gained 32*l.* how must the gain be divided?

If 113*l.* gain 32*l.* what will 45*l.* gain?

$$\begin{array}{r} B. 45 \\ C. 68 \\ \hline 113 \end{array}$$

$$\begin{array}{r} 45 \\ \hline 160 \\ 128 \\ \hline 113 \overline{) 1440} \quad (12*l.* \frac{84}{113} \text{ B's part.}) \\ \underline{113} \\ 310 \\ \underline{226} \\ 84 \end{array}$$

If 113/. gain 32/. what will 68/. gain?

68

256

192

113) 2176 (19/. $\frac{29}{113}$ C's part.

113

1046

1017

29

The 29 of the fraction multiplied by 240, (the pence in 20s.) and the product divided 113, the quotient tells the pence.

Suppose three merchants, F, G, and C. join their monies to make a stock of 25000l. of which F. laid in 10000l. G. 8000l. and H. 7000l. with this (after a certain time of trading) they gained 7500l. how must this be parted?

If 25000/. gain 7500/. what will 10000/. gain?

10000

25|000) 75000|000 (3000/. F's part

75

00000

If 25000/. gain 7500/. what will 8000/. gain?

8000

25|000) 60000|000 (2400/. G's part.

50

100

100

0

If 25000*l.* gain 7500*l.* what will 7000*l.* gain?

$$\begin{array}{r}
 7000 \\
 \hline
 25 \overline{) 1000} \quad 52500 \overline{) 1000} \quad (2100 \text{ } l. \text{ } H\text{'s part.} \\
 \underline{50} \qquad \qquad \qquad F. 3000 \text{ } l. \\
 25 \qquad \qquad \qquad G. 2400 \text{ } l. \\
 \underline{25} \qquad \qquad \qquad H. 2100 \text{ } l. \quad \left. \vphantom{\begin{array}{l} F. 3000 \text{ } l. \\ G. 2400 \text{ } l. \\ H. 2100 \text{ } l. \end{array}} \right\} \text{Stocks added.} \\
 0 \qquad \qquad \qquad \underline{\hspace{1cm}} \\
 \qquad \qquad \qquad 75000
 \end{array}$$

The Rule of FELLOWSHIP with Time.

The RULE.

EVERY man's stock must be multiplied by his time, and the total of those products added together is the first number, the gain or loss the second number, and the product of every man's particular stock and time the third number.

Suppose two merchants in company, A. laid in 100*l.* for 4 months; B. put in 136*l.* for 3 months, and they gained 50*l.* what is each man's part?

$$\begin{array}{r}
 A. \text{ put in } 100 \text{ } l. \quad \left. \vphantom{\begin{array}{l} A. \text{ put in } 100 \text{ } l. \\ B. \text{ put in } 136 \text{ } l. \end{array}} \right\} \text{Multiplied by } \left\{ \begin{array}{l} 4 \\ 3 \end{array} \right\} \text{ give } \left\{ \begin{array}{l} 400 \\ 408 \end{array} \right\} \\
 B. \text{ put in } 136 \text{ } l. \quad \left. \vphantom{\begin{array}{l} A. \text{ put in } 100 \text{ } l. \\ B. \text{ put in } 136 \text{ } l. \end{array}} \right\} \\
 \hline
 808
 \end{array}$$

If 808*l.* gain 50*l.* what will 400*l.* gain?

$$\begin{array}{r}
 400 \\
 \hline
 808 \overline{) 20000} \quad (24 \text{ } l. \quad \frac{608}{808} \text{ } A\text{'s part.} \\
 \underline{1616} \\
 3840 \\
 \underline{3232} \\
 608
 \end{array}$$

If 808/. gain 50/. what will 408 gain?

$$\begin{array}{r} 408 \\ \hline 400 \\ 2000 \\ \hline \end{array}$$

808) 20400 (25/. $\frac{200}{808}$ B's part.
1616

$$\begin{array}{r} 4240 \\ 4040 \\ \hline 200 \end{array}$$

Suppose three farmers, as A, B and C held a pasture, for which they pay 45 l. per annum, A hath 24 oxen 32 days, B hath 12 there 48 days, and C fed 16 oxen there 49 days, what must every man pay of the rent?

Oxen		Days		
A 24	} Multiplied by	{ 32	} give	{ 768
B 12		{ 48		{ 576
C 16		{ 49		{ 384
				1728

RULES of PRACTICE.

The even parts

Of a pound.

s.	d.	h.
10	0	is $\frac{1}{2}$
6	8	$\frac{1}{3}$
5	0	$\frac{1}{4}$
4	0	$\frac{1}{5}$
3	4	$\frac{1}{6}$
2	6	$\frac{1}{8}$
2	0	$\frac{1}{10}$
1	8	$\frac{1}{12}$

Of a shill.

d.	s.
6	is $\frac{1}{2}$
4	$\frac{1}{3}$
3	$\frac{1}{4}$
1 $\frac{1}{2}$	$\frac{1}{8}$
1	$\frac{1}{12}$

Of a hund.

lb.	C.
56	$\frac{1}{2}$
84	$\frac{3}{4}$
28	$\frac{1}{3}$
14	$\frac{1}{6}$
16	$\frac{1}{7}$
8	$\frac{1}{14}$
7	$\frac{1}{16}$

Q

1. When

1. When the given price is pence, take your parts in shillings, the product divided by 20 gives the answer in pounds.

Or, You may bring it into pounds, at once, by cutting off the last figure, and by considering that 240 pence is one pound, whereof 8d is $\frac{1}{30}$, 6d is $\frac{1}{40}$, 4d is $\frac{1}{60}$, 3d is $\frac{1}{80}$, 2d is $\frac{1}{120}$.

<i>Example.</i>		716 ells at 3d	
	254 lb. of Tobacco	d	— s d
	at 1 d	$3\frac{1}{80}$	1 8 - 19 - 0 Facit
$\frac{1}{12}$	211 2 d		
	—		
l.	1 - 1 - 2 Facit.	d	215 lb. at 4d
	—	$4\frac{1}{80}$	— s d.
	254 lb. at 2d		1 3 - 11 - 8 facit
	—	d	
$\frac{1}{8}$	42 - 4	$6\frac{1}{40}$	643 gal. at 6d
	—		—
l.	2 - 2 - 4 Facit.		1 16 - 1 - 6 facit

The three last examples are brought into pounds at one operation, after which manner any sum in practice may be readily cast up.

Here you may see that 254 pounds of tobacco, at 1d a pound, divided by the $\frac{1}{12}$, gives 21 s. 2 d and that divided by 20 (by cutting off the last figure, and taking $\frac{1}{2}$ of it), gives 1 l 1 s 2 d the price of 254 pounds of tobacco: and for 2 d a pound take the $\frac{1}{8}$, because 2 d is the $\frac{1}{8}$ part of a shilling, and for 3 d a pound take $\frac{1}{4}$; and so for the others at 4d and 6d.

2. When the given price is such pence as are no even part of a shilling, take first the greatest even part of a shilling, and then part of that part: add them together, and divide the product by 20, or cut off the last figure, and take $\frac{1}{2}$.

d	2121 ells at $5d$	748 lb. at $7d$
$4\frac{1}{2}$	707 s	$6d$ is $\frac{1}{2}$ or 374
$1\frac{1}{4}$	176 - 9 d	of which $1d$ or $\frac{1}{4}$ is 62 - 4
5	883 - 9	436
	44 - 3 - 9 <i>Facit</i>	121 - 16 - 4

254 lb of tobacco at $9d$ and $10\frac{1}{2}$ a lb

d	254 lb at $9d$	d	254 lb at $10\frac{1}{2}d$
$6\frac{1}{2}$	127	$6\frac{1}{2}$	127 shillings in 254 sixpences
$3\frac{1}{2}$	63 - 6	$4\frac{1}{2}$	84 - 8 in 254 groats
$9\frac{1}{2}$	190 - 6	$5\frac{1}{2}$	10 - 7 in 254 half-pence
	9 - 10 - 6 <i>facit</i>	$1\frac{1}{2}$	5 - 3 in 254 farthings
			2217 - $6\frac{1}{2}$
			11 - 7 - $6\frac{1}{2}$ <i>facit</i>

Demonstration. In 254 pounds of tobacco at $10\frac{1}{2}d$ a pound, there must be 254 sixpences, which is 127 shillings, and 254 groats, which is 84 s 8 d. and 254 half-pence, which is 10 s 7 d and 254 farthings, which is 5 s $3\frac{1}{2}d$; all these added together, make 227 s $6\frac{1}{2}d$, which divided by 20, gives the *Ans.* 11 l 7 s $6\frac{1}{2}d$

d	614 lb at $11d$	d	563 lb at $11\frac{1}{2}d$
$6\frac{1}{2}$	307	$6\frac{1}{2}$	281 - 6 d
$4\frac{1}{2}$	204 - 8 d	$4\frac{1}{2}$	187 - 8
$1\frac{1}{4}$	51 - 2	$1\frac{1}{4}$	70 - $4\frac{1}{2}$
11	5612 - 10		5319 - $6\frac{1}{2}$
	2812 - 10 <i>facit</i>		26 - 19 - $6\frac{1}{2}$ <i>facit</i>

3. If the given price be any number of pence above 1 s and less than 2 s. take the aliquot parts in pence, (as in the last precedent) to which add the given quantity for the 1 s and proceed as before.

EXAMPLES.

$$\begin{array}{r}
 254 \text{ lb. at } 15d. \\
 d. \frac{1}{4} \quad 63 - 6 \\
 \hline
 3117 - 6 \\
 \hline
 15 - 17 - 6 \text{ Facit.}
 \end{array}$$

$$\begin{array}{r}
 254 \text{ at } 17d. \\
 \frac{1}{4} \quad 84 - 8 \\
 \frac{1}{4} \quad 21 - 2 \\
 \hline
 3519 - 10 \\
 \hline
 17 - 19 - 10 \text{ Facit.}
 \end{array}$$

$$\begin{array}{r}
 264 \text{ yds. at } 18d. \\
 \frac{1}{2} \quad 132 \\
 \hline
 3916 \\
 \hline
 19 - 16 - 0 \text{ Facit.}
 \end{array}$$

$$\begin{array}{r}
 295 \text{ Gall. at } 19d. \\
 \frac{1}{2} \quad 147 - 6 \\
 \frac{1}{6} \quad 24 - 11 \\
 \hline
 4617s. - 5d. \\
 \hline
 23 - 7 - 5 \text{ Facit.}
 \end{array}$$

$$\begin{array}{r}
 672 \text{ lb. at } 22d. \frac{1}{4} \\
 \frac{1}{2} \quad 336 \\
 \frac{1}{4} \quad 224 \\
 \frac{1}{8} \quad 42 \\
 \hline
 12714 \\
 \hline
 63 - 14 - 0 \text{ Facit.}
 \end{array}$$

$$\begin{array}{r}
 456 \text{ Ells at } 25d. \frac{1}{4} \\
 \frac{1}{2} \quad 228 \\
 \frac{1}{4} \quad 152 \\
 \frac{1}{4} \quad 38 \\
 \frac{1}{4} \quad 9 - 6 \\
 \hline
 8813 - 6 \\
 \hline
 44 - 3 - 6 \text{ Facit.}
 \end{array}$$

In 672 lb. at 22d. $\frac{1}{4}$ a lb. I take $\frac{1}{2}$ for 6d. the $\frac{1}{4}$ for 1d. and the $\frac{1}{8}$ for the $\frac{1}{4}$, because $\frac{1}{4}$ is the $\frac{1}{8}$ of 6d. by which you will find that in 672 sixpences there is 336 shillings, and in 672 Groats there is 224 shillings, and in 672 three farthings there is 42 shillings.

4. If the given price be such shillings as are an even part of a pound sterling, take such a part of the given quantity, and the quotient is pounds.

$$\begin{array}{r}
 \text{Ells. s. d.} \\
 433 \text{ at } 1 - 8 \\
 \hline
 \frac{1}{11} \quad 36 - 1 - 8 \text{ Facit.} \\
 \hline
 674 \text{ at } 2s. 6d. \\
 \hline
 \frac{1}{3} \quad 84 - 5 - 0 \text{ Facit.}
 \end{array}$$

$$\begin{array}{r}
 \text{Yards.} \\
 271 \text{ at } 2s. \\
 \hline
 \frac{1}{10} \quad 27 - 2 - 0 \text{ Facit.} \\
 \hline
 495 \text{ at } 3s. 4d. \\
 \hline
 \frac{1}{8} \quad 34 - 10 - 0 \text{ Facit.}
 \end{array}$$

Groats.

Crowns.		
457 at 5s.		
$\frac{1}{2}$	114 - 5 - 0	Facit.
395 at 6s. 8d.		
$\frac{1}{2}$	98 - 6 - 8	Facit.

Dollars.		
612 at 4s.		
$\frac{1}{2}$	122 - 8 - 0	Facit.
372 - at 10s.		
$\frac{1}{2}$	186 - 0 - 0	Facit.

In this first example of 433 Ells, at 1s. 8d. I take the $\frac{1}{2}$ because 1s. 8d. is the $\frac{1}{2}$ of 1 l. and say, 12 in 43 is 3 times, rest 7, which makes the 3 to be 73; then 12 in 73, is 6 times, rest one, which is 1s. 8d. which I put down as above.

5. If the given price be such shillings and pence as are no even parts of a pound, multiply the given quantity by the number of shillings, and take the aliquot parts of pence, and proceed according to the second rule.

Ells.		
375 at 8s. 6d.		
8		
3000		
$\frac{1}{2}$	187 - 6	
31817 - 6		
159 - 7 - 6 Facit.		

Ells.		
493 at 15s. 10.		
15		
2465		
493		
$\frac{1}{2}$	246 - 6d.	
$\frac{1}{3}$	164 - 4d.	
78015 - 10		
390 - 5 - 10 Facit.		

C. s. d.		
295 at 12 - 9		
12		
$\frac{1}{2}$	3540	
	147 - 6	
	73 - 9	
37611 - 3		
188 - 1 - 3 Facit.		

C. s. d.		
214 at 7 - 11		
7		
1498		
$\frac{1}{2}$	107	
$\frac{1}{2}$	53 - 6	
$\frac{1}{3}$	35 - 8	
16914 - 2		
84 - 14 - 2 Facit.		

4. If your given price be any number of pounds, shillings and pence; reduce first your pounds and shillings into shillings, and proceed according to the last rule.

Pieces. l. s. d.	Tuns. l. s. d.
754 at 4 - 3 - 7	176 at 3 - 7 - 10
83 20	67 20
2262 83	1232 67
6032	1056
$\frac{1}{2}$ 377	11792
$\frac{1}{6}$ 62 - 10	88
6302 1 - 10	$\frac{1}{2}$ 58 - 8
3151 - 1 - 10 facit.	$\frac{1}{3}$ 1193 8 - 8
	596 - 18 - 8 facit.

7. If your given price be any number of pounds, and exceeding five pounds, then multiply your given quantity by the number of the pounds, and take your aliquot parts in shillings and pence, viz.

C. l. s. d.	hnds. l. s. d.
74 at 11 - 12 - 6	394 at 16 - 16 - 3
11	16
814	2364 } at 16l.
$10\frac{1}{2}$ 37 d.	394 }
$2\frac{1}{2}$ 9 - 5 - 0	197 at 10s.
860 - 5 - 0 facit.	$\frac{1}{2}$ 98 - 10 at 5
	$\frac{1}{3}$ 16 - 14 at 1
	$\frac{1}{3}$ 4 - 18 - 6 at 3d.
	4. 6624 - 2 - 6 facit.

7. If the given quantity be any number of C. qrs. or pounds; or tuns, C. qrs. and pounds, &c. work as before where no part is, and take your aliquot parts in quarters and pounds, or in C. qrs. and pounds and add them to your first work. An example or two will make this plain.

75 C.

C.	s.	d.
75½ at 22—6		
22		
	11—3	
150		
150		
37—6		
11—3		
169	8—9	
84—18—9		<i>facit.</i>

C.	s.	d.
63¼ at 12—10		
12 mult.		
756s.		
31—6d.		
21		
9—7½C.		
81	8—I	<i>Sum.</i>
40—18—I½		<i>facit.</i>

In the example of 63 C. ¾ at 12s. 10d. the C. weight, I multiply the C. by 12s. and take the parts in pence for the odd pence; then for the ¾ of C. I first take the ½ of the price of a C. and that makes 6s. 5d. the price of ½ a C. and then I take the ¼ of that, which gives 3s. 2½d. the price of a gr. of a C. Add them together, it gives the price of ¾ of a C. which is 9s. 7½d and must be added to your first work. Two or three examples more will make it familiar and easy to any capacity.

84 C. 3 grs. 11 lb. at	21 s. 10 d.
21	
84	
168	
42	
28	
18 - 6	
185	2 - 2 - 6
92 - 12 - 6	<i>Facit.</i>

10 - 11	
5 - 5 ½	
1 - 4 ¼	
0 - 9 ¼	
18 - 6	
The price of	
3 grs. 11 lb.	

Tun C qr lb l s d.
 12—14—3—14 at 15—17—06 a tun.

12

 190—10—00

 $\frac{1}{2}$ 7—18—9

 $\frac{1}{2}$ 3—3—6

 $\frac{1}{8}$ 0—7—11 $\frac{1}{2}$
 $\frac{1}{2}$ 0—3—11 $\frac{1}{2}$
 $\frac{1}{2}$ 0—1—11 $\frac{1}{2}$

Facit 202—06—1 $\frac{1}{2}$

The Order of deducting Tare and Tret.

Gross is the weight of a commodity, with the hogf-head, chest, box, or whatever else contains it.

Tare is the allowance given for the weight of the cask, hoghead, &c.

Tret is an allowance of 4 pounds, in 104 pounds, for waste and dust on some sort of goods.

Exam. 11 hhds. qt. C. qr. lb. lb. lb.
 45—3—15 gross, tare 14 *per* 112
 14 — $\frac{1}{2}$ ————— how many lb. neat?
 5—2—26 tare.

Ans. 40—0—17

1. Here 14 pounds tare being $\frac{1}{8}$ of 112 pounds, take $\frac{1}{8}$ of the gross, the quotient gives the whole tare, which subtract from the gross, gives the neat weight.

The operation is performed thus: divide the gross by 8, say 8 in 45, 5 times, and 5 C. remains, which is 20 *qrs* and 3 is 23; then 8 in 23, 2 times, 7 *qrs* remain, which turned into pounds by 28, and added to the 15 pounds, make 211 pounds, then 8 in 211 is 26 times. So the tare is 5 C. 2 *qr.* 26 pounds.

	C.	qr.	lb.	s.	d.
<i>Example.</i>	40	- 0	- 17	<i>Neat at</i>	22 - 6
	22			lb	_____
	—			14 $\frac{1}{8}$	2 - 9 - $\frac{3}{4}$
	80			2 $\frac{1}{7}$	0 - 4 - $\frac{1}{4}$
	80			1 $\frac{1}{2}$	0 - 2 - $\frac{1}{4}$
	20			_____	
	0	- 3	- 4 $\frac{1}{2}$	<i>facit</i>	3 - 2 - $\frac{1}{4}$
	90	0	3 - 4 $\frac{1}{2}$		price of 17 pounds.
	—				
	1.	45	- 3 - 4 $\frac{1}{2}$		

If the tare be 16 pounds in 112 pounds, take $\frac{1}{7}$ of the gross, and work as before.

If 18 pounds, *per* 112 pounds, for tare, take the aliquot parts, *viz.*

For 16 lb take the $\frac{1}{7}$ } Add the tare of 16, and the
 For 2 take the $\frac{1}{8}$ } tare of 2 together the total
 subtract from the gross, and work as before.

lb lb { lb
 If 20 in 112 for tare { for 16 take $\frac{1}{7}$ lb
 { for 4 take $\frac{1}{4}$ of 16

2. When an allowance is made for tret, then (after the tare is subtracted from the gross) the remainder is called futtle, which divide by 26, because 4 pounds is the 26th part of 104, the allowance always given for tret) the quotient gives the tret, which subtracted from the futtle, gives the neat weight.

C qr lb lb lb lb lb
 Ex. 45 - 3 - 15 gr. tare 19 in 112 tret 4 in 104
 16½ 6 - 2 - 06 tare

$ \begin{array}{r} 39 - 1 - 9 \text{ futtle} \\ \hline 4 \\ \hline 157 \\ 28 \\ \hline 1295 \\ 314 \\ \hline 4405 \text{ pounds futtle} \\ 169 \text{ tret} \\ \hline 4236 \text{ neat pounds at } 6s \\ \hline 6\frac{1}{2} 211 8s \\ \hline l. 105 - 18 - 0 \text{ facit} \end{array} $	$ \begin{array}{r} 4) 104 \\ \hline 26 \\ \hline 26) 4405 \\ \hline 180 \\ \hline 169 \quad 245 \\ \hline 11 \end{array} $
--	--

3. If the allowance for tare be 8 pounds, 10 pounds, 12 pounds, in 112, or any other lesser number, whether an aliquot part of 112 or not, in such cases, divide the gross into two parts by 2, which will make it half hundreds, then say, 8 is $\frac{1}{7}$ of $\frac{1}{2}$ C. or of 12 pound in 112 pound.

Rule. From $\frac{1}{8}$ of the gross, take $\frac{1}{7}$ of that 8th for tare at 12 *per Cent.* When you have found tare subtract it always out of the whole gross.

I might enumerate examples, but these being sufficient to instruct any ordinary capacity in tare and tret,

I shall proceed to shew some other abbreviated ways of casting up goods and merchandize.

For retailers of small parcels, as mercers, linnen and woollen drapers, haberdashers of hats, &c.

THE most abbreviate and ready way is, to multiply the price by the quantity.

Ex.

Example. Sold 7 yards of cloth, at 14 s 6 d a yard.

$$\begin{array}{r} 7 \\ \hline \text{Answ. L. } 5-1-6 \end{array}$$

Say 7 times 6 is 42, which is 3 s 6 d set down 6 pence and carry 3 shillings to the place of shillings, and say, 7 times 4 is 28, and 3 I carry is 31, set down 1 s and carry 3 angels to the place of tens of shillings, and say, 7 times 1 is 7, and 3 I carry is 10 angels, which is 5 l fix the 5 l in the place of pounds: so the price of 7 yards is 5 l 1 s 6 d.

Example. Sold 11 yards and $\frac{1}{2}$ at 13 s 3 d.

$$\begin{array}{r} \text{11} \\ \hline \text{L. } 7-5-09 \\ \text{the } \frac{1}{2} \text{ yard } 6-07\frac{1}{2} \\ \hline \text{Ans. l. } 7-12-04\frac{1}{2} \end{array}$$

For half a yard, take half of 13 s 3 d and add to the product of 11 yards.

Object. There are many numbers under 100 that are not included in the multiplication table, or being multiplied together, will not produce the given quantity; and so consequently cannot be done by this new way of practice.

Answ. It is very true, there are several numbers under 100, that no two numbers multiplied together can produce them, such as 13, 17, 19, 26, 29, 31, 33, 37, and many more.

Rule. In such cases multiply by two such numbers, as being multiplied together will come nearest to such odd numbers; then multiply the price by that part which wants to make up the given quantity. An example of which follows.

Example. 29 ells at 7—^s 9—^d

_____ 7

2—14—3

4

10—17—0

7—9

Ans. 11—04—9

Here I multiply by 7 and 4, because 7 times 4 is 28, and for the odd ell to make it 29, I add the price of the ell to the product.

Ans. 11l 4s 9d

FRACTIONS

Are of two Kinds { VULGAR,
and
DECIMAL.

A *Vulgar fraction* is caused by division of whole numbers, the remainder of which being less than the divisor, called the numerator, is always the dividend, and the denominator is the divisor.

3. Numerator
- 4 Denominator.

A *decimal fraction* is such a one, whose denominator is understood, and therefore need not be expressed: and is an unit with as many cyphers following it, as there be figures and cyphers in the numerator.

Decimal fractions, whether they stand alone, or be joined with integers, have always a comma or point before them to distinguish them from integers, as 5,560042.

In *decimals* the value of every figure or cypher decreases by a tenfold proportion from the unit's place towards the right hand, as the whole numbers do increase the value towards the left hand, by the like proportion, as you may see in the following table.

Whole

C	X	Thouf.	C	X	Units
6	5	4	3	2	1

Whole numbers.

Tens	Hund.	Thouf.	X	Thouf.	C	Thouf.
2	3	4	5	6		

Decimals.

Cyphers before integers, and at the end, or right hand of decimals are no value; but after integers, and before decimals they have their value; for in integers they increase, and in decimals they diminish the value of the other figures joined with them.

The integers 005 is but 5, and 004 is but 4, and 06 is but 6.

But in decimals, ,005 is $\frac{5}{1000}$, and ,004 is $\frac{4}{1000}$, and ,06 is $\frac{6}{100}$.

And again, in integers 500 is five hundred, and 400 is four hundred.

In decimals 500 is but 5, and 400 is but 4, &c.

Next to abbreviation and valuation of vulgar fractions, there is little required, but to know how to bring a fraction of a lesser name into a fraction of a greater name, and to reduce fractions of diverse unequal denominators to one common denominator, which being well understood, you may with as much ease add, subtract, multiply and divide a fraction as you can a whole number.

In decimals a fraction is seldom abbreviated; therefore,

1. *To abbreviate any vulgar fractions*, find such a number for dividing both the numerator and denominator thereof so, that no remainder be on either of the divisions.

Example. Abbreviate $\frac{96}{120}$ into $\frac{4}{5}$ its lowest term.

Say, 12 in 96, 8 times, and 12 in 120, 10, then the fraction is $\frac{8}{10}$; then say, 2 in 8, 4 times, and 2 in 10, 5 times, then the fraction is $\frac{4}{5}$, so that 4 is to 5, as 96 to 120.

2. *To know what part of a pound sterling any number of shillings and pence is*, bring the shillings and pence
R
into

into pence for a numerator, and place 240 under it (the pence of one pound) for denominator.

Example. What part of a pound is 11 s. 3 d?

Facit $\frac{135}{240}$

3. To reduce vulgar fractions into decimals, Add cyphers at pleasure to the numerator, and divide by the denominator. *Example, viz.*

Reduce 11 s. 3 d. into a decimal fraction.

$$\begin{array}{r}
 12 \qquad \qquad \qquad 240 \overline{) 1350000} \\
 \hline
 135 \qquad \text{Numer. facit } 5625 \qquad \qquad \qquad 150 \\
 \hline
 240 \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad 60 \\
 \hline
 \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad 120 \\
 \hline
 \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad 0
 \end{array}$$

Or, $\frac{5625}{10000}$, or .5625.

Example. Reduce $\frac{4}{5}$ into a decimal fraction.

$$\begin{array}{r}
 5 \overline{) 4000} \\
 \hline
 \qquad \qquad \qquad ,800
 \end{array}$$

Or rather .8

facit ,800

4. To value a vulgar fraction, Multiply the integer into the numerator, and divide by the denominator.

What is the $\frac{5}{8}$ of a pound sterling?

$$\begin{array}{r}
 20 \\
 5 \\
 \hline
 8 \overline{) 100} \qquad \begin{array}{cc} s. & d. \\ (12 & \text{---} 6 \end{array} \\
 \qquad \qquad 4 \qquad \qquad \text{facit.} \\
 \qquad \qquad 48 d.
 \end{array}$$

An ell worth $\begin{array}{cc} s. & d. \\ 7 & 9 \end{array}$ what is $\frac{2}{5}$ worth?

$$\begin{array}{r}
 2 \\
 \hline
 5 \overline{) 15-6} \\
 \hline
 \text{facit } 3-1\frac{2}{5}
 \end{array}$$

5. *To value a mixt number*, Multiply the mixt number by the numerator, and divide by the denominator. *Example.*

	<i>l.</i>	<i>s.</i>	<i>d.</i>	
A ship worth	794	11	9	what is $\frac{5}{8}$ worth?
			5	
	8) 3972	18	9	
facit	496	12	$4\frac{1}{2}$	

6. *To value a decimal fraction, expressing coin*; every prime or unit in the first place is 2 s. value; every 5 in the second place 1 s. and the rest farthings; but if they exceed $\frac{25}{1000}$, there must be one farthing abated.

Reduce $\frac{7}{8}$ of a pound into a decimal fraction.

$$\begin{array}{r} 9) ,700000 \\ ,77777 \end{array}$$

Here 7 primes is 14 s. and 5 taken out of the second place is 1 s. which makes 15 s. then 2 remains, which is 27 to the thirds, or place of farthings, out of which abate 1 for $\frac{25}{1000}$, it makes 15 s. $6\frac{1}{2}$ d. which is the $\frac{7}{8}$ of a pound sterling.

7. *To reduce vulgar fractions to a common denominator*, Multiply the numerator of each fraction into every denominator, except its own, which makes that product of a new numerator; then multiply all the denominators together, and that product is one common denominator to all the new numerators. *Example.*

Reduce $\frac{2}{3}$ and $\frac{1}{4}$ to a common denominator.
Facit $\frac{8}{12}$ and $\frac{3}{12}$.

Here 12 is the common denominator to both the new numerators, viz. 8 and 3. and you find that 8 is to 12 as 2 to 3, and 3 is to 12, as 1 to 4.

So that $\frac{8}{12}$ is to $\frac{2}{3}$, and $\frac{3}{12}$ to $\frac{1}{4}$.

Reduce $\frac{3}{4}$, and $\frac{5}{8}$, and $\frac{7}{8}$, of a *l.* to a common denominator.

To prove your work, Divide your new numerator by the numerator of that fraction, and divide the common denominator of the fraction by the denominator, if both quotients are equal, your work is true.

$$\begin{array}{r}
 4 \overline{) 144} \\
 \underline{6 18 40 42} \\
 8 4 4 \\
 \underline{24 144 160 168} \\
 192 192 192 192
 \end{array}$$

Example. $\frac{144}{192}$, is $\frac{48}{48}$, here divided by 3, make 48, and 192 divided by 4, gives 48, which was to be proved. Or, you may prove your work by abbreviation of fractions; but that is attended with much difficulty, where 4 or more fractions are reduced to a common denominator.

Now this reduction of fractions is of little use otherwise than to prepare a fraction to be either added, subtracted, multiplied, or divided.

As if the $\frac{3}{4}$ and $\frac{5}{8}$ and $\frac{7}{8}$ *l.* were to be added together, reduce them first into a common denominator, as in the last rule, it makes $\frac{144}{192}$ and $\frac{160}{192}$ and $\frac{168}{192}$. Add all the new numerators together, make 472, which divided by 192, the common denominator, makes 2 *l.* $\frac{88}{192}$ as in the following example.

Addition of } 144
Vulgar Frac- } 160
tions. } 168

$$\begin{array}{r}
 192 \overline{) 472} \\
 \underline{2 88}
 \end{array}$$

Facit. 2 *l.* $\frac{88}{192}$, or 9 - 2

And if the $\frac{3}{4}$ and $\frac{5}{8}$ and $\frac{7}{8}$ *l.* were to be added together in *decimals*, reduce them first into *decimal fractions*, according to the third rule, and the operation stands, *viz.*

Addition of } $\frac{3}{4}$, 75
Decimals } $\frac{5}{8}$, 8333
 } $\frac{7}{8}$, 875

Say, 4 in 30 is 7 times, and 4 in 20 is 5 times; and so for the rest.

l. *s.* *d.*

Facit 2,4583, or, 2 - 9 - 2

By

By this addition you see how much less work is made by *decimals* than is in *vulgar fractions*, and how easy their value is found out according to the sixth rule.

8 To reduce the compound fractions, or fractions of a lesser name into the fractions of a greater; multiply the numerators together for a new numerator, and the denominators multiply together for a new denominator.

Reduce $\frac{3}{4}$ of a penny into the proper fraction of a pound sterling.

Say, $\frac{3}{4}$ of $\frac{1}{12}$ of $\frac{1}{20}$, or $\frac{3}{4}$ of $\frac{1}{240}$, facit $\frac{3}{960}$.

9. To reduce a mixt number of a lesser name into the fractions of a greater; reduce the mixt number into an improper fraction, and work as before.

Reduce $3 \frac{1}{2}d.$ into the proper fraction of a pound sterling.

$\frac{7}{2}$ of $\frac{1}{12}$ of $\frac{1}{20}$, or $\frac{7}{2}$ of $\frac{1}{240}$, facit $\frac{7}{480}$.

By the same rule you may reduce any sort of weight or measure.

For compound fractions, their use is chiefly to bring fractions of divers denominations to one and the same denomination.

As if the $\frac{3}{4}$ of a penny, $\frac{2}{3}$ of a shilling, and $\frac{7}{8}$ of a pound were added together.

The $\frac{3}{4}$ of a penny must be reduced into the fraction of a pound, and the $\frac{2}{3}$ of a shilling, must be reduced into the fraction of a pound thus:

$\frac{3}{4}$ of $\frac{1}{240}$ fac. $\frac{3}{960}$
 $\frac{2}{3}$ of $\frac{1}{20}$ fac. $\frac{2}{60}$

Then the fractions to be added, are $\frac{3}{960}$, and $\frac{2}{60}$, and $\frac{7}{8}$, which reduce to a common denominator, and add them together, either by *decimals* or *vulgar fractions*.

ADDITION of FRACTIONS.

1. IF the fractions to be added have one common denominator, add all the numerators together, and divide the product by the common denominator.

R 3

Example.

Example. Add $\left\{ \begin{array}{c} \frac{8}{12} \\ \frac{5}{12} \\ \frac{7}{12} \end{array} \right\}$ of a pound together.

$$\begin{array}{r} 12 \overline{) 20} \\ \text{Facit } 1\frac{8}{12} \end{array}$$

2. If the fractions to be added be of different denominators, reduce them to a common denominator, and proceed as before.

Example. Add $\frac{1}{8}$ and $\frac{3}{4}$ and $\frac{2}{3}$ l. together.

8	—	—	8	84
4	28	24	8	72
—	3	3	—	64
32	—	—	$\frac{64}{96}$	—
3	84	72	96	220
—	—	—	—	—
96	96	96	—	Facit $2\frac{8}{96}$

To add $\frac{1}{8}$ and $\frac{3}{4}$ and $\frac{2}{3}$ of a pound in decimals, reduce them into decimal fractions, and add them up as in whole numbers, keeping the place of units just under each other.

$$\text{Add } \left\{ \begin{array}{l} \frac{1}{8}, 875 \\ \frac{3}{4}, 75 \\ \frac{2}{3}, 6666 \end{array} \right.$$

$$2,2916$$

$$\text{Facit } 2-5-10$$

$$\begin{array}{r} 8 \overline{) 71000} \\ \underline{875} \end{array}$$

$$\begin{array}{r} 4 \overline{) 3000} \\ \underline{75} \end{array}$$

$$\begin{array}{r} 3 \overline{) 20000} \\ \underline{6666} \end{array}$$

SUBTRACTION of FRACTIONS.

1. **T**O subtract fractions of different denominators, reduce them to a common denominator, and subtract the lesser fraction from the greater.

R 3

Example.

Example. From $\frac{3}{4}l.$ take $\frac{2}{3}l.$ from $\frac{9}{12}$
 $\frac{9}{12}$ take $\frac{8}{12}$
 9 8
Facit $\frac{1}{12}$

2. If you have a mixt number, (or integer and fraction) and the fraction to be subtracted be greater than the fraction from which you are to subtract,

Borrow an integer from the mixt number, and work as in the subtraction of whole numbers.

Exam. From $11\frac{3}{4}$ take $\frac{8}{12}$ Here I cannot take $\frac{9}{12}$
 $2\frac{3}{4}$ out of $\frac{8}{12}$, therefore, I
 borrow an integer, viz.
 $8\frac{1}{12}$ 12, and say, 9 out of 12,
 rest 3, to which add $\frac{8}{12}$,
 rest $\frac{11}{12}$, and carry 1 to 2, is 3l. out of 11l. rest 8; and
Facit $8\frac{11}{12}$.

From $25\frac{3}{4}$ from 42
 take $19\frac{7}{12}$ take $16\frac{5}{12}$
Facit $15\frac{8}{12}$ *Facit* $25\frac{9}{12}$

Subtraction of decimals is the same as in whole numbers, keeping the places of units just under each other of the integers, and primes under primes of the decimals, &c.

l.		l.	s.	d.
From $\frac{7}{8}$, 875		the $\frac{7}{8}$ is	—17—	6
Take $\frac{1}{4}$, 75		$\frac{1}{4}$ is	—15—	0
	s.	d.		
	Rest, 125	or 2—	6	Rest 2—6

Equal to the Decimal, ,125.

MULTIPLICATION of FRACTIONS.

1. **T**O multiply proper fractions, multiply the numerators together for a new numerator, and the denominators multiply together for a denominator.

Example. Multiply $\frac{7}{8}$ by $\frac{3}{4}$, *Facit* $\frac{21}{32}$.

Exam-

2. If a mixt number and a fraction are to be multiplied together, reduce the mixt number into an improper fraction, and work as in the last,

Example. Multiply $11 \frac{3}{4}$ by $\frac{1}{2}$.

$$\frac{3\frac{1}{2}}{4} \text{ by } \frac{1}{2} \text{ Facit } \frac{105}{16}.$$

l. l.

Example. Multiply $11 \frac{3}{4}$ by $2 \frac{1}{4}$

$$\frac{3\frac{1}{2}}{4} \text{ by } \frac{1\frac{1}{2}}{4}, \text{ fac. } \frac{385}{16} \text{ or } 32 - 1 - 8$$

l. s. d.

3. To multiply a mixt number by an integer, make the integer an improper fraction, by placing [1] under it, and reduce your mixt number into an improper fraction, and work as in the first rule.

Example. Multiply $7\frac{5}{8}$ by 4

$$6\frac{1}{8} \text{ by } \frac{4}{1}, \text{ facit } 24\frac{4}{8}.$$

4. Multiplication of decimals is the same as in whole numbers, saving as many decimal parts as are in the multiplicand and multiplier, so many must be cut off from the product, which if it have not so many places, the defect must be supply'd with cyphers towards the left-hand.

Multiply ,1005
by ,631

1005
3015

Facit ,0031 155

11 ,83
2 ,87

8281
9464
2366

33 ,9521

DIVISION of FRACTIONS.

1. **T**O divide single fractions: there is no need to reduce the fractions to a common denominator, but

but multiply the numerator of a *divisor*, by the *denominator* of the *dividend*. And contrary for the terms of the quotient thus :

Example. Divide $\frac{7}{8}$ by $\frac{3}{4}$

$$\frac{3}{4} \overline{) \frac{7}{8}} \left(\frac{28}{14}, \text{ or } 1\frac{6}{14} \right)$$

2. If it happens that the fraction of the divisor be greater than the fraction of the dividend, the *Facit* of such division is a fraction.

Example. Divide $\frac{3}{4}$ by $\frac{7}{8}$

$$\frac{7}{8} \overline{) \frac{3}{4}} \left(\frac{24}{28} \right)$$

$$\text{Facit } \frac{12}{14}$$

3. To divide an integer by a fraction, multiply the integer into the *denominator*, and divide by the *numerator*.

Example. Divide 8 by $\frac{5}{6}$

$$\frac{5}{6} \overline{) 8} \left(\frac{48}{5} \right)$$

$$9\frac{3}{5} \text{ Facit}$$

4. To divide a fraction by an integer, place the numbers as follows, and work as by the first rule.

Example. Divide $\frac{3}{4}$ by 3.

$$\frac{3}{1} \overline{) \frac{3}{4}} \left(\frac{1}{12} \right)$$

$$\text{Facit } \frac{1}{4}$$

5. To divide a mixt number by an integer, reduce the mixt number into an improper fraction, whose *denominator* multiply by the integer for your *divisor*.

Divide $3\frac{7}{8}$ by 2

$$\frac{3}{1} \overline{) 2\frac{7}{8}} \left(\frac{27}{16} \text{ or } 1\frac{11}{16} \text{ Facit.} \right)$$

6. To

6. To divide a mixt number by a fraction, reduce the mixt number into an improper fraction, and work as before.

Example. Divide $3\frac{3}{4}$ by $\frac{4}{7}$

$$\frac{4}{7}) \frac{15}{4} \text{ (} \frac{105}{16} \text{ facit, or } 6\frac{9}{16}$$

7. To divide an integer by a mixt number, reduce the mixt number and integer into improper fractions, and proceed as before.

Example. Divide 5 by $3\frac{1}{2}$

$$\frac{10}{3}) \frac{5}{1} \text{ (} \frac{25}{3} \text{ facit.}$$

Or $1\frac{7}{3}$ facit.

8. To divide a mixt number by a mixt number, reduce them into improper fractions, and divide as before.

Example. Divide $3\frac{1}{2}$ by $2\frac{1}{3}$

$$\text{Or } \frac{18}{3} \text{ by } \frac{11}{3}$$

Facit $\frac{72}{3}$ or $1\frac{1}{3}$

Division of decimals is the same as in whole numbers, till the work be done, and then use the converse of the rule for multiplication, viz. so many decimals as are in the dividend, so many there must be in the divisor and quotient: and if there be not so many, the quotient must be supplied with cyphers towards the left-hand.

Example. Divide 33,9521 by 2,87

$$\begin{array}{r} \text{2,87) 33,9521} \\ \underline{2382} \\ \text{Facit 11,83} \end{array}$$

00

See the converse in multiplication of decimals

The Rule of Three in Fractions.

RULE: You must multiply your second and third numbers together, and divide by your first.

Observing the same method as in whole numbers, viz. That the first and third numbers be of one name or denomination.

Example. If $3\frac{1}{2}$ d. buy $\frac{2}{3}$ lb. of Tobacco, What shall $96\frac{3}{4}$ l. buy?

$$\begin{array}{r} \text{d.} \quad \text{lb.} \quad \text{l.} \\ \hline \frac{1}{2} \text{ of } \frac{1}{240} \quad 1. \quad \text{lb.} \quad 1. \\ \hline \frac{7}{480} \quad \frac{2}{3} \quad 95\frac{1}{4} \\ \hline \frac{4}{384} \quad \text{by } \frac{2}{3} \\ \hline \frac{706}{12} \end{array}$$

Divide $7\frac{66}{12}$ by $\frac{7}{480}$

$$\begin{array}{r} 7 \quad 766 \\ \hline 84 \quad 2880 \\ \hline 2880 \\ \hline 3360 \end{array}$$

$$\begin{array}{r} 84 \overline{) 367680} \\ \underline{00} \\ 84 \end{array}$$

$$\begin{array}{r} 316 \\ 648 \\ 600 \\ \hline \end{array}$$

Fac. 4377 lb.
of tobacco.

12



*The mensuration of plain superficies (or Flat Measure)
such as board, glass, wainscot, painting, and the like.*

Note 1. **T**Hat in superficial measure, 12 times 12 inches, being 144 inches, are the number of inches contained in a square foot of superficial measure.

2. That

2. That to square any number, is to multiply it in itself, as if you would know how many square feet is contained in a yard square, multiply 3, the feet in one yard by 3, the product is 9, and so many feet make a yard square

Example. How many square inches are there in a yard square.

1 Yard is 3 Feet.

12

36 Inches.

36

216

108

Fac. 1296 Inches.

The *general rule* is to multiply the length by the breadth, the product is the content.

Example. 1. A board 12 foot long, and 14 inches broad, how many square feet?

12

144

14

576

144

144) 2016

..

576

Facit 14 square Feet.

00

Example 2. A piece of wainscot 24 foot, 9 inches long, and 11 foot deep, how many square yards?

Feet.

Feet. Inch.	} Mult.	
24—9		Yard. Feet. Inch.
11		<i>Facit</i> 30 - 2 - 3
9) 272—3		Or 30 - 2 - $\frac{3}{4}$

Example 3. A painter hath done a room, 90 foot about, and 11 $\frac{1}{2}$ foot high, I demand the square yards therein?

Foot.
11,5 High.
90 About.

9) 1035 (115 Yards for answer.
13
45

Note, This way 'tis done much truer, and with fewer figures, and no charge to the memory.

Example. A glazier hath done a pane of glass of 5 foot 73, high, and 5 foot 54, broad, at 6d. the foot square.

Note, The glazier's foot divided into 10 parts, and every part into 10 parts more.

5, 73
5, 54

2292
2865
2865

facit, feet 31,7442

A general rule to measure round or square pillars.

Multiply the length by the circumference of round pillars.

And for square pillars, add the sides or breadth together, and multiply the total by the length.

Example 5. A painter hath done a pillar of 6 foot 3 inches circumference, and 14 foot 9 inches long, I demand the square yards of painting?

S

The

The common and best way to do this, is by cross multiplication thus,

Foot. Inch.

$$\begin{array}{r} 14 - 9 \\ 6 - 3 \\ \hline 3 - 8 - 3 \\ 88 - 6 \\ \hline \end{array}$$

facit, foot 92 - 2 - 3 *answer.*
Or yards 10 - 2 - 2 - 3

Multiplying 9 by 3, gives 2 foot 3, put down the 3, and carry 2; then 3 times 14 is 42, and 2 is 44, which is 3 foot 8, which put down as you see.

Then 6 times 9 is 54, which is 4 foot 6, put 6 under the 8, (as being 12ths of a foot as the 8 is) then 6 times 14 is 84, and 4 is 88. So the sum of the 2 lines is 92 foot 2 - 3. Or the feet divided by 9, is 10 yards 2 foot, 2 primes (or 12ths of a foot) and 3 seconds, or 12ths of a 12th.

The same is done decimally thus:

$$\begin{array}{r} 14, 75 \text{ Foot} \\ 6, 25 \\ \hline 7375 \\ 2950 \\ 8850 \\ \hline 9) 92, 1875 \\ \text{Or yards } 10 \quad 2, 1875 \text{ Foot.} \end{array}$$

For regular *Polygons*, add all the sides together, and multiply the total by half the nearest distance from the center to one of the sides.

For *Cones*, multiply half the length by the circumference.

For *Pyramids*, add all the breadth at the base together, and multiply half the length by the total.

For

For *Globes*, multiply the area of the greatest circle by 4, it gives the content.

Mensuration of solids.

Solids; such as stone, timber, &c. are measured by the cubic or solid foot; now a cube is a figure like a dye of 6 equal sides, and a cubic foot contains 12 inches square on every side.

THE rule is, multiply the length by the breadth, and that product multiply by the depth, which divide by 1728, the cubic inches in a foot solid.

Example.

A piece of timber 16 foot long, 14 inches broad, and 9 inches deep, how many solid feet doth it contain?

12	16
12	12
—	—
144	192
12	14
—	—
1728	768
	192
	—
	2688
	9
	—
1728)	24192
—	6912
14	—
	000

Example.

A stone 7 foot 3 inches long, 4 foot 5 inches broad, and 2 foot 3 inches deep, how many solid feet?

7—3	4—5	2—3
12	12	12
—	—	—
87 length	53	27
53 breadth		
—		
261		
435	1728)	124497
—		3537
4611	Facit 72	—
27 deep	solid feet	81
—		— relts
32277		1728
9222	Or 6" - 9"	
—		

Facit 124497 cubic inches.

But the way most used, and which is shorter and most like an artist, is this.

Feet	Inch
4—5	broad
2—3	deep
—	—
1—	1—3
8—	10—
—	—
9—	11—3
7—	3— long
—	—
2—	5—9—9
69—	6—9
—	—
Foot	72— —6—9

Only carrying the 12's, both in your multiplication and addition.

To find how many inches in length make a solid foot of timber, multiply the number of inches square in it self for divisor, and make 1728, the cubical inches of a foot your dividend.

Ex-

Example.

A piece of timber 18 inches square, what length will it require to make a foot solid.

18

18

144

18

324) 1728

facit 5 inch 108

Example

How many inches in length will make a foot at 12 inches square?

12

12

144) 1728

288

facit 12 inches

PLANK MEASURE.

A table shewing how many foot make a load of plank of any thickness.

Inch Foot to
thick the load

1 — 600

1½ — 400

2 — 300

2½ — 340

3 — 200

3½ — 171,428

4 — 150

4½ — 133,31

Inch Foot to
thick the load

5 — 120

5½ — 109,0912

6 — 100

6½ — 92,076

7 — 85,714

7½ — 80

8 — 75

8½ — 70,588

The way to make this table, or to know how many foot of plank make a load of any thickness.

Rule. Say, If 12 inch thick, require 50 foot to make a load: what will 4 inch thick require? This by the reverse rule of three gives 150, as you see by the operation.

$$\begin{array}{r} 12. \ 50. \ 4. \\ 12 \\ \hline \end{array}$$

4) 600 (150 foot for answer.

So that if you divide 600 by any thickness of plank, the quotient sheweth how many feet thereof make a load

2 *Exam.* If it were required to know how many load are in 5762 foot of plank 5 inches thick.

By the table 120 foot make a load; therefore divide 5762 by 120, and the quotient is loads.

120) 5762 (48 $\frac{2}{5}$ or $\frac{1}{5}$ loads.

Or multiply the feet given by 144, and that product by the thickness of the plank, then divide by 1728 the inches in a solid foot, and that quote is feet, which divide by 50 the feet in a load, and you have the loads without the table.

$$\begin{array}{r} 5762 \\ 144 \\ \hline 829728 \\ 5 \\ \hline 1728) 4148640 \quad (2400 \quad (48\frac{1}{5} \text{ load.} \\ 6926 \quad 50) \\ 1440 \end{array}$$

Note, The remainder $\frac{1440}{1728}$ is equal to 56 foot, and $\frac{1}{5}$ of $\frac{1}{5}$ is equal $\frac{1}{25}$ of a load as above.

Example 3. In 1234 foot of 4 inches plank, how many load and solid feet?

$$\begin{array}{r} 150) 1234 \quad (8 \text{ load} \\ 3) \quad 34 \quad (11 \text{ solid feet} \end{array}$$

For the solid feet, divide the remainder by the number of 50's contained in the divisor; or by the times that the thickness of the plank is found in 12 as above.

Also, if the last example were done by the second rule, under the second example, 1234 multiplied by

144,

144, gives 177696, and that by 4 inches thick, 710784, which divided by 1728, the quote is 411 foot, or 8 load (dividing by 50) and 11 foot, as in the last rule and example.

3^{dly}, To know how many feet of plank of any thickness make a tun. Say by the inverse rule of three, as 12 to 40, so the thickness to the answer.

12. 40. 4
12

4) 480 (120 feet in the tun.

And so may you make a table of the feet of any thickness in a tun (as is before shewed for the load) by only dividing the 480, by the thickness of the plank.

So in thickness Foot make a tun

of 1 inch	480
2	240
3	160
4	120
5	96
6	80, &c.

A Short and Easy
M E T H O D
O F
BOOK-KEEPING.

INSTRUCTIONS.

Quest. **W**HAT is the first thing I must do, who design to keep my books of accompts after this method.

Answer. You must make an inventory; an example of which is at the end of these instructions.

Q. How must I post the first part of this inventory?

A. You must post it on your ledger, viz. *merchandise*, to the debit of that accompt.

Cash, to the debit of your cash-book.

George Mason's debt, to the debit of his accompt.

Germain Bell's debt, to his debit also.

And for the whole sum (viz. 7301) you must give counterpart in credit of stock.

Q. How must I post the other part of this inventory?

A. To the credit of *Thos. Richards*, the sum you owe him.

To the credit of *John Fair*, the sum you owe him.

And for the whole sum, (viz. 1001) you must debit stock. See the several accompts, fol. 1, 2.

Q. I see by the first page of the day-book, that it contains entries of goods sold to sundry persons: How must these be posted?

A. To debit of *Richard Hughes*, what sold him.

To debit of *Anthony Coule*, the like.

To debit of *James Gray* and company, the like.

To

To debit of *Richard Hunt*, the like. See their accmpts, Fol. 3. ledger.

And counterpart must be given for the whole sum of this page (*viz.* 161 10s 10d) on credit of merchandize in the said ledger. See accompt of merchandize, Fol. 1. ledger.

And the like must be done for the pages 2, 3, 4, 5 and 6 of the said day-book.

Note, That the ready money taken for goods sold, is posted each month to the debit of your cash-book.

Q. How must I enter the monies I receive (of debtors on my ledger?)

A. On the debit side of your cash-book. See that book.

Q. How must I post those sums received, into my ledger?

A. To the credits of the persons, of whom received! See the accompts of

<i>Richard Hughs</i>	————	Fol. 3
<i>Anthony Coule</i>	———	Fol. 3
<i>John Gray</i> , and company		Fol. 3
<i>Thomas Wilson</i>	— —	Fol. 3
<i>Henry Trap</i>	————	Fol. 4

Q. How must I post (into my ledger) the total receipts of the month of *August* (*viz.* 571 3s and 10d)?

A. You must post that total to the debit of your cash, in your ledger, writing,

To *sunderies*. Received *per* cash-book. See the accompt of cash, in the ledger, Fol. 1.

Do the like for *September* and *October*'s receipts.

Q. How must I enter the monies I pay to those I owe to, and who have credit in my ledger?

A. On the credit side of your cash-book. See the cash-book.

Q. How must I post those sums paid?

A. To the debits of the person to whom paid. See the accompts of *Thomas Richards*, Fol. 2. and *John Fair*, Fol. 2. in your ledger.

Q. How must I post (into my ledger) the total payments of the month of *August* (*viz.* 301)?

A. You

A. You must post it to the credit of your cash, in your ledger, writing,

By *sundries*, paid *per* cash-book. See the account of cash in your ledger, Fol. 1.

Q. I understand by these directions, how to state and post my books, How must I proceed in balancing my ledger?

A. Value your merchandise remaining unfold, and enter the sum of their value on credit of the account of merchandize, in your ledger. See the account of merchandize, Fol. 1.

And give counterpart in debit of the account of balance in the said ledger. See the debit of balance, Fol. 4.

Which done, subtract the debit side of the said account of merchandize from its credit, and place the remainder (*viz.* 97l 10s) on the debit side of it. See the account, Fol. 1.

And give counterpart on credit of profit and loss in the said ledger. See account of profit and loss, Fol. 4.

Then add up debtor and creditor of the account of cash in the said ledger, and subtract the credit from the debit, and place the cash remaining (*viz.* 297l 7s 1d) on credit of the said account of cash. See the account, Fol. 1. and give counterpart in debit of the account of balance. See said account of balance, Fol. 4.

Q. How must I do with the account of expenses?

A. Write on its credit-side (the 32l) by profit and loss, and give counterpart in debits of the account of profit and loss. See both the accounts, Fol. 2, 4.

Q. How must I do with the account of *George Mason*, who, I find by his account owes me 10l.

A. You must write on credit of his account by balance, now owing to me 10l.

And give counterpart, on debit of balance. See both the accounts, Fol. 2, 4.

Do in the same manner by the accounts of

Germain Bell _____ Fol. 2

Richard Hughs _____ Fol. 3

John Gray and company _____ Fol. 3

And Thomas Wilson _____ Fol. 3

See

See their particular accompts in your ledger.

Q. How must I do with the accmpt of *Thomas Richards*, to whom I find I owe 20l.

A. You must write on the debit of his accmpt. To balance now due to him 20l.

And give counterpart on credit of balance. See both the accompts, Fol. 2, 4.

Do the like with the accmpt of *John Fair*. See his accmpt, Fol. 2.

Q. How must I do to balance or close the accompts of stock, profit and loss?

A. Subtract the debit, or profit and loss, from its credit, and set the remainder (*viz.* 65l 10s) being your clear gains during the time of this trade) on the debit of profit and loss. See the accmpt, Fol. 4.

And give counterpart in credit of stock. See accompts of stock, Fol. 4.

Q. How must I do to balance the accompts of stock?

A. Subtract its debit from its credit, and set the remainder (*viz.* 685l 10s being your present net stock) on the debit of stock. See the accmpt, Fol. 1.

And give counterpart in credit of balance. See accmpt of balance, Fol. 4.

This done, your ledger is balanced, and the accmpt of balance, Fol. 4.

This done your ledger is balanced, and the accmpt of balance (if you have proceeded right) will be equal on both sides.

The INVENTORY,

London, August 1, 1754.

I Have in merchandize of fundry	}	L. 520—00—00
sorts, to the value of — —		
In cash or ready money —		L. 180—00—00
Owing to me, by		
Richard Mason — —		L. 20—00—00
Germain Bell — —		L. 10—00—00
Owing by me, to		
Thomas Richards	L. 60—00—00	
John Fair — —	L. 50—00—00	
	—————	L. 110—00—00
	My net stock	L. 620—00—00
		Cash

Cash-Book. I.

Receipts ——— Debitor.

L. s. d.

August, 1754.

	1	To stock by inventory ———	1	180	00	00
	8	Richard Hughs, of him ———	3	4	00	00
	12	Anthony Coule, ditto ———	3	3	6	06
	16	John Gray and company ditto —	3	1	10	06
	20	Thomas Wilson, ditto ———	3	4	13	00
	30	Henry Trap ——— ditto ———	4	0	15	00
pt.	31	Merchandize since 1st of August	—	42	18	10
		L. 57—03—10—Received.	—	237	03	10

September, 1754.

		Last balance.	237	03	10
11	Richard Hughs, of him ———	3	8	15	11
—	Anthony Coule, ditto ———	3	3	00	00
15	George Mason, ditto ———	2	10	00	00
20	Germain Bell, ditto ———	2	5	00	00
24	Henry Trap ———	4	2	06	00
30	John Gray and company ditto —	3	2	00	03
pt.	—	Merchandize since 1st of September	38	06	06
		L. 69—18—08 Received.	276	12	06

I.

Payments—Creditor

l. s. d.

August, 1754.

23	By Thomas Richards, to him	2	20	00	00
31	John Fair—ditto	2	10	00	00

Paid this month.

30 00 00

Resting *per* balance

207 03 10

237 03 10

September, 1754.

22	John Fair—to him	2	5	00	00
28	Thomas Richards ditto	2	10	00	00

Paid this month.

15 00 00

Resting *per* balance.

261 12 06

276 12 06

T

Receipts

2.

Receipts——Debtor

l. s. d.

October, 1754.

		Last balance	26	12	06
11	To Anthony Coule, of him	—	2	00	00
20	John Biddy——ditto — — —	—	4	21	00
31	John Gray and company, ditto	—	3	15	03
pt.	Merchandize since 1st of October	—	86	11	04
		L. 97—04—07 Received	358	17	01

November, 1754.

Payments

2.

Payments ——— Creditor.

l. s. d.

October, 1754.

206 00 00 503 104 — 701 —	15 By <i>Thomas Richards</i> , to him — — — — 28 <i>John Fair</i> — — ditto — — — — 31 Expences, &c. since 1 st of <i>August</i> — —	2 2 1	1000 2000 3200	00 00 00
--	---	-------------	----------------------	----------------

—	—	62	00	00
—	—	296	17	01

—	—	—	—	—
—	—	358	17	01

November, 1754.

A DAY-BOOK, OR JOURNAL

Day-Book.		I.	l. s. d.	
Accompts Debtor to merchandize.				
Sold!				
August 1: 1723.				
3.	Richard Hughs,			
	39½ ells linnen, at	s. 3—2	60	50
	ditto			
3.	Anthony Coule,			
	58½ ells of linen, at	s. 2—4	61	60
	ditto 5.			
	John Gray and company,			
	3 doz. scissors, at 4. 0.	l. 0—12—0		
	3 doz. ditto 3. 9	0—11—3		
	6 doz. round points 3. 9.	1—02—6		
	6 doz. middling 2. 8.	0—16—0		
	ditto 10		30	10
	Richard Hughs,			
3.	3 masses of pearl, at	l. 0—2—6	00	70
Merchandize fold			16	10
Day-				

Day-Book. 2.

l. s. d.

Accompts Debtor to merchandize.

Sold.

August 17. 1723.

Thomas Wilson,

4.	22 doz. scissors	4. 3.	L. 4—13—6
	6 doz. middling	4. 3.	1—05—6
	9 doz. ditto	2. 8.	1—04—0
	10 doz. small	1. 6.	1—10—0

813 00

ditto 20

3. Anthony Coule,

	1 looking-glass	— —	L. 0—08—6
	1 ditto middling	— —	0—09—6
	3 tortoise shell combs	— —	0—06—0

104 00

ditto 23.

4. Henry Trap,

	1 doz. scissors with cases	L. 0—09—6
	1 doz. without cases	0—05—6

015 00

Sold.

August 27. 1723.

Richard Hughs,

3.	3 pair scissors half barb	L. 0—06—0
	1 doz. ditto, small set	0—05—0
	2 knives at 20d	0—03—4
	1 doz. comb brushes	0—03—0
	6 pen knives, at 8d	0—04—0
	12 doz. clasp knives	1—17—0
	24 doz. knives horn handed	3—00—0

518 04

Merchandize £ 11—16 10 04

T 3

Day-

Day-Book. 3.

						l.	s.	d.
	Accompts Debtor to merchandize.							
	Sold.							
	August 31. 1754.							
1.	Receipts in ready money for goods since the 1st of August	—	—	—	—	42	18	10
	September 3. 1754.							
4.	Henry Trap,							
	A parcel of scissors	—	—	—	—	0	12	00
	ditto 6.							
3.	Richard Hughs,							
	2 masses pearl, at	—	s. 2—6	—	—	0	05	00
	ditto 11							
3.	Richard Hughs,							
	13 ells cloth, at	—	s. 2—6	—	—	1	12	06
	ditto 15.							
3.	Anthony Coule,							
	4 masses pearl,	2. 6.	L. 0—10—0					
	1½ doz. pendants	4. 0.	0—06—0					
						0	16	00
	ditto 16.							
3.	Henry Trap,							
	12 doz. of horn-trumpets	2.	L. 1—04—0					
	2 doz. comb-brushes	3.	0—06—0					
	2 doz. ditto	2.	0—04—0					
						1	14	00
	Merchandize sold—					47	18	04
	Day—							

Day-Book.

4.

l. s. d.

Accompts Debtor to merchandize.

Sold.

September 30. 1723!

4 John Bell,

3 masses Ven. pearl, at L. 1—00—0

2 doz. scissors, at ——— 0—09—0

3 doz. fine combs, at ——— 1—09—0

2 18 00

ditto

3. John Gray and company,

1 piece white gauze qt. 24 ells.

1 piece ——— ditto ——— 22

1 piece ——— ditto ——— 20

1 piece ——— ditto ——— 18

1 piece yellow ditto — 20

1 piece black ditto — 19

Ells ——— 123 at 21 d

10 15 03

ditto.

1. Receipts in ready money for goods since }
the 1st of September ——— ——— }

38 6 6

October 2. 1754.

3. Thomas Wilson,

1 doz. scissors with cases, at L. 0—12—0

4 masses pearl, at 2 s. 0 d. 0—08—0

9 masses, ditto, at 3—17—4

4 17 4

Merchandize sold ———

56 17 01

Day.

Day-Book. 5.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Accompts Debtor to merchandize.			
Sold.			
September 29. 1754.			
Thomas Wilson,			
2 pieces tabby, qt. 61 } L. 25—18—6			
ells—8 s. 6 d.			
1 piece, ditto, qt. 28 } 11—18—0			
ells,—8 s. 6 d.			
	37	16	6
—ditto 3 r.—			
Receipts in ready money for goods since } 86 11 4			
the 1st of October			
Merchandize sold—	124	07	10

T H E L E D G E R.



A L P H A B E T.

B.

Bell, Germain — 2
Biddy, John — 4
Balance — 4

C.

Coule, Anthony — 3
Cash — — — 1

E.

Expn. and abatem. 1

F.

Fair, John — 2

G.

Gray, John and comp. 3

H.

Hughs, Richard — 3

M.

Merchandize — 1
Mafon, George — 2

P.

Profit and loss — 4

R.

Rept. and paym. cash. 1
Richards, Thomas — 2

S.

Stock — — — 1

T.

Trap, Henry — 4

W.

Wilson, Thomas — 3
Ledger

Ledger 1.

		l. s. d.		
1754		Stock—Debtor.		
Aug.	2	To fundry to whom I owe	110	00 00
Oct.	31	To balance N. stock	468	51 00
			795	11 00
1754		Merchandize, Debtor.		
Aug.	1	To stock, <i>per</i> inventory	1520	00 00
Oct.	31	To P. and L. carried thither	497	10 00
			617	10 00
1754		Receipts, or Cash Debtor.		
Aug.	1	To stock, money <i>per</i> inventory	1180	00 00
	31	To fund. <i>per</i> book, page 1	570	21 10
Sept.	30	To fundries	691	80 08
Oct.	31	To fundries	970	40 07
			4040	70 01
1754		Expences, &c. Debtor.		
Oct.	3	To payment hereon since 1 Aug.	131	19 00

Ledger

Ledger I.

l. s.

1754	Stock—Creditor.			
Aug. 13	By sundry <i>per</i> inventory	730	00	00
Oct.	By pro. and los, gain'd in 3 mon.	4 65	11	00
		795	11	00

1754	Merchandize, Creditor.			
Aug. 10	By fundries sold, day-book 1	16	10	10
27	By fundries — page — 2	16	10	04
Sept. 16	By fundries — — 3	47	18	04
Oct. 02	By fundries — — 4	56	17	01
31	By fundries — — 5	124	07	10

By bal. value of remains — 262 14 05
4 354 15 07

617 10 00

1754	Payments, or Cash Creditor.			
Aug. 31	By fundries <i>per</i> book — 1	30	00	00
Sept. 30	By fundries — page — 1	15	00	00
Oct. 31	By fundries — page — 1	62	00	00

By balance, rest in cash — 107 00 00
4 297 07 01

404 07 01

1754	Expences, &c. Creditor.			
Oct. 31	By P. and L. carried there —	4 31	19	00

Led.

Ledger 2.

			l.	s.	d.
1754	<i>George Mason, Debtor.</i>				
Aug.	I	To stock, now owing me	I	20	00 00
1754	<i>Germain Bell, Debtor.</i>				
Aug.	I	To stock, now due to me	I	10	00 00
1754	<i>Thomas Richards, Debtor.</i>				
Aug.	22	To payment, to him	I	20	00 00
Sept.	28	To ditto	I	10	00 00
Oct.	25	To ditto	I	10	00 00
				40	00 00
To balance now due to him			4	20	00 00
				60	00 00
1754	<i>John Fair, Debtor.</i>				
Aug.	31	To payment, to him	I	10	00 00
Sept.	23	To ditto	I	5	00 00
Oct.	28	To ditto	I	20	00 00
				35	00 00
To ballance new owing him			4	15	00 00
				50	00 00

Ledger

Ledger 2.

			<i>l.</i>	<i>s.</i>	<i>d.</i>
1754	<i>George Mason, Creditor.</i>				
Sept. 15	By receipt of him ———	I	10	00	00
Oct. 31	By balance now owing me ———	4	10	00	00
			20	00	00
1754	<i>Germain Bell, Creditor.</i>				
Sept. 20	By receipt of him ———	I	5	00	00
Oct. 31	By balance, now owing me ———	4	5	00	00
			10	00	00
1754	<i>Thomas Richards, Creditor.</i>				
Aug. 1	By stock, now owing him ———	I	60	00	00
1754	<i>John Fair, Creditor.</i>				
Aug. 1	By stock now due to him ———	I	50	00	00

Ledger 3.

		L. s. d.	
Ledger 3.			
1754	<i>Richard Hughes, Debtor.</i>		
Aug.	1	To Merchandize, sold him	6 05 01
	10	To ditto,	0 07 06
	27	To ditto, a parcel	5 18 04
Sept.	6	To ditto, 2 masses of pearl	0 05 00
	11	To ditto, 13 ells of cloth at 2s. 6d.	1 12 06
			14 08 05
1754	<i>Anthony Coule, Debtor.</i>		
Aug.	5	To merchandize sold him	6 16 06
	20	To ditto, a parcel	1 04 00
Sept.	15	To ditto, a parcel	0 16 00
			8 16 06
1754	<i>John Gray, and company, Debtor.</i>		
Aug.	5	To merchandize, a parcel	3 01 09
Sept.	30	To ditto, a parcel	10 15 3
			13 17 00
1754	<i>Thomas Wilson, Debtor.</i>		
Aug.	17	To merchandize, a parcel	8 13 00
Oct.	2	To ditto, a parcel	4 17 04
	29	To ditto, a parcel	37 16 06
			51 06 10
Ledger			

Ledger. 3.

			l.	s.	d.
1754		<i>Richard Hughes, Creditor</i>			
Aug. 8		By receipt of him	I	4	00 00
Sept. 11		By ditto	I	8	15 11
				12	15 11
		By balance now owing me	4	1	12 06
				14	08 5
1754		<i>Anthony Coule, Creditor.</i>			
Aug. 12		By receipt of him	I	3	06 06
Sept. 11		By ditto	I	3	00 00
Oct. 11		By ditto	I	2	00 00
		Balance		10	00
				8	16 06
1754		<i>John Gray and comp. Creditor</i>			
Aug. 16		By receipt of them	I	1	10 06
Sept. 30		By ditto	I	2	00 03
Oct. 31		By ditto	I	5	15 03
			4	9	06 00
		By balance now owing by me		4	11 00
				13	17 00
1754		<i>Thomas Wilson, Creditor.</i>			
Aug. 20		By receipt of him	I	4	13 00
Oct. 31		By balance, now owing me		46	13 10
				51	06 10

Ledger. 4.

			l.	s.	d.
1754	<i>Henry Trap</i> , creditor.				
Aug. 30	By receipt of him	— — —	I	0	15 00
Sept. 24	By ditto in full	— — —	I	2	06 00
				3	01 00
1754	<i>John Biddy</i> , creditor.				
Oct. 20	By receipt in full	— — —	I	2	18 00
1754	Profit and loss, creditor.				
Oct. 31	By merch. to close that account		I	79	10 00
1754	Balance, creditor.				
Oct. 31	By <i>Thomas Richards</i> , I owe him		2	20	00 00
	By <i>John Fair</i> , ditto	— — —	2	15	00 00
				35	00 00
	By stock, for its neat	— — —	I	68	11 00
				720	11 00

INSTRUCTIONS.

Quest. **H**AVING taught me how to state, post, and balance my books ; what method must I use at the going out of these books into others ?

Ans. From the balance of these books, (see edger, fol. 4.) you must draw out another inventory, as follows :

The INVENTORY.

London, October 31. 1754.

I Have in merchandize of sundry } l. 354 - 16 - 07
 sorts, to the value of }
 In cash, or ready money ——— l. 297 - 07 - 01

Owing to me, by

George Mason ———	l.	10 - 00 - 00
Germain Bell ———	l.	5 - 00 - 00
Richard Hughs ———	l.	1 - 12 - 06
John Gray and comp. ———	l.	4 - 11 - 00
Thomas Wilson ———	l.	46 - 13 - 10
Anthony Coule ———	l.	00 - 10 - 00
	l.	720 - 11 - 00

Owing by me, to

Thomas Richards	l.	20 - 00 - 00
John Fair ———	l.	15 - 00 - 00
	l.	35 : 00 : 00
My net stock ———	l.	685 : 11 : 00

And post it into your new ledger, as by the directions given for the posting your other inventory.

Q. In the cash-book on debtor-side, (for instance, in the month of *August*) are figures just before the money-lines, as 1 before 180 l. and 3 before 4 l. &c. I desire to know what those figures shew ?

A. The figure 1 (before 180 l. in the first line) shews the folio of the ledger, on which the accompt of stock stands.

The figure 3 following *Richard Hughs*, in the next line, shews the folio of the ledger, whereon the accompt of *Richard Hughs* stands.

The like is to be understood of the figure 3 following *Anthony Coule*: the 3 following *John Gray* and company: the 3 following *Thomas Wilson*, and the 4 following *Henry Trap*, on debtor-side of the said cash book for the month of *August*, and of those on debtor side, of the said book for the months of *September* and *October*.

Q. What do the figures (on the creditor side of the said cash book) which come just before the money lines shew? For instance, in the month of *August* on creditors side, of the figure 2 following *Thomas Richards* just before the 20 l. and the 2 following *John Fair*, just before 10 l.

A. The figure 2 following *Thomas Richards*, shews that his accompt stands in ledger, fol. 2. And the 2 following *John Fair*, shews that his accompt stands also in the said ledger, folio 2.

The like is to be understood of the figures 2. 2. on creditor side of the cash book for *September*.

And of the figures 2. 2. 2. on creditor side of the cash book for *October*.

Q. What does the sum l. 57 : 03 : 10, at the foot of the debtor side of the cash book for the month of *August*, shew?

A. It shews the total sum received during the month of *August*, and is produced by subtracting the 180 l. in the first line, from the l. 237 : 03 : 10, on the debtor of that accompt.

The like is to be understood of the l. 69 : 14 : 08, at the foot of *September*, and of the l. 97 . 08 : 07, at the foot of *October*.

And as those sums shew the total receipt during each month, so the sum 30 l. on credit side of the cash-book for *August*, the sum 15 l. for *September*, and the 62 l. for *October*, shew the total payment during each of those months.

Q. How is the balance (or rest of money) in cash, found?

A. You must subtract the 30*l.* (on credit of *August's* cash-book) from the *l.* 237 : 03 : 10, on the debit-side, and the remainder being *l.* 207 : 03 : 10, is the balance or rest of money, in cash, which placed under the 30 *l.* paid, and added to it, makes a just balance with the debtor-side. See the cash-book for the month of *August*.

You are to do in the like manner to find the balance, or rests of cash for the month of *September* and *October*. See the cash-book for both those months.

Q. What does the figure 3 against *Richard Hughs*, (in the day-book) and the 3 against *Anthony Coule*, and the other figures in the margin of the day-book, shew?

A. They shew the folio's of the ledger whereon the accompts of *Richard Hughs*, *Anthony Coule*, and the other accompts stand.

And also shew that those persons or accompts are debtors; as the figure 1 under the small line of the margin, and at the foot of each page of the day-book, just against the words merchandize sold shews that the accompt of merchandize stands in the ledger, on fol. 1. and is creditor.

Q. What do the figures in the ledger coming just before the money lines on debtor-side, shew?

A. As the words of each line on debtor-side of said ledger, immediately following the word to, shews what accompts or persons are to be credited, or counterparted, so those figures shew on what folio's in the ledger those accompts, or persons are to be found.

Q. What do the figures coming just before the money lines on the creditor-side of the ledger shew?

A. As the words in each line on creditors-side of the said ledger immediately following the word by, shews what accompts, or persons are to be debited or counterparted; so those figures shew on what folio's in the ledger those accompts or persons are to be found.

Q. How must I enter the goods that I buy?

A. You must enter them in a bought-book; as for instance.

Mer.

Merchandize debtor to persons.

Bought,

Of (suppose) *John Thomas, viz.*

46 ells linnen, at 3 s. }
per ell ———— } l. 6 : 18 : 00

52 ells, ditto, at 4 s. }
per ell ———— } l. 10 : 08 : 00

————— l. 17 : 06 : 00

This article (and others of a like nature) must be posted in your ledger, to the credit of the accompt of the persons of whom bought, here *John Thomas*: and the total of each page of your bought-book, must be posted in the said ledger to the debit of accompt of merchandize.

Q. I have been told, that a good method of book-keeping will shew to the owner of the books, or others concerned, these following necessary (and many other) particulars, *viz.*

Concerning Merchandize.

N^o 1 What goods (during the whole, or any time of the accompt) have been bought, brought into charge, when, of whom, and at what prices.

2. What goods (as above) have been sold, issued out of the charge, when, to whom, and at what prices.

3. The whole quantity bought and sold, and the profit, or loss, arising on those so disposed of.

Concerning Cash or Money.

4. What sums of money have been received (as above) when, of whom, and on whose accompt; also whether in part or in full.

5. What sums of money have been paid (as above) when, to whom, and on whose accompt. Also whether in part or in full.

6. What sum total has been received and paid (during the whole, or during any time as above) and consequently the sum resting in cash.

Concerning Persons with whom I deal.

7. For what sums they stand indebted, from what dates, and for what.

8. For what sums I stand indebted to them, from what dates, and for what.

9. Whether any balance, or remainder, be due from them

them to me, or from me to them, and what sum.

Concerning my Expences.

10. What expence I have been at (during the time of the accompt, or any part of it) and such expence consider'd and allow'd; then what neat gain, or loss has attended.

Concerning my Stock.

11. What stock I began with, and what my present stock is, and what particulars compos'd each.

Now I desire you to shew me how this method will answer all these particulars?

A. Concerning merchandize, your bought-book, will shew you the particular demands of numb. 1.

And your day-book, those in numb. 2.

The debtor-side of accompt of merchandize in your ledger, will shew the whole quantity bought, and its creditor-side, the whole quantity sold, and the same accompt shews you also the profit and loss arising on those you have dispos'd of. See the accompt of merchandize in ledger fol. 1. thus the demands numb. 3. are shewn.

Concerning cash or money, the debtor-side of your cash-book answers the demands in numb. 4. and the creditor side of the said book shews the demands in numb. 5. and consequently those in numb. 6. by comparing the debtor and creditor sides.

The creditor-side also of the said book, shews the balance (or rest that should be found) in cash.

Concerning persons with whom you deal. The debtor-sides of their accompts shew the demands of numb. 7. and the creditor-sides those of numb. 8.

And consequently their accompts compar'd in debtor and creditor, shew the demands of numb. 9.

Concerning your Expences. The accompt of expences in your ledger shews the expences, as in numb. 10. and the accompt of profit and loss, will shew the neatgain or loss.

Concerning your Stock. The accompt of stock in your ledger shews that you began with, and the accompt of balance shews your present stock, and of what particulars it consists, and answers the demands in numb. 11.

A Compleat
C O M P E N D I U M
OF
G E O G R A P H Y;

Describing all the
Empires, Kingdoms, and Dominions,
In The
Whole WORLD.

Shewing their
Bounds, Situation, Dimensions, Religions, Languages,
Commodities, Divisions, Rivers, Mountains, Lakes,
with their Archbishopricks, Bishopricks, and Univer-
sities.

To which is prefixed,

A method of learning geography without a master,
for the use of such grown persons as have neglected this
useful study in their youth.

And also,

A Table, shewing the parallel of latitude, the breadth,
and the length of the day in every climate.

In a most plain and easy method.

How to learn Geography without the directions of a Master.

THe person who desires to learn *Geography*, must have a set of maps, and after reading over the situation of each empire &c. he should be very exact in finding out in the map, the several places mentioned therein; and thus by reading each article several times over, and comparing them with the maps, any grown person may soon know the most remarkable places in the world, their situations-boundaries &c. and will insensibly, by degrees, remember the names of them.

The following maps, which may be purchased at a small expence, will be sufficient to instruct any reader and render this treatise easy and intelligible, viz.

The World, Europe, Asia, Africa, North-America, South-America, England, Scotland, and Ireland.

'Tis highly necessary, that the different parts of each of those maps should be distinguished by different colours, or at least by points or lines.

A TABLE shewing the Parallel of latitude, the Breadth, and the Length of the Day in every Climate.

Climates.	<i>Climates between the Equator and Polar Circles.</i>												
	P.of Lat.		Bread.		Day.		Clim.	P.of Lat.		Bread.		Day.	
	D.	M.	D.	M.	H.	M.		D.	M.	D.	M.	H.	M.
1	8	34	8	34	12	30	13	59	59	1	33	18	30
2	16	43	8	09	13	00	14	61	18	1	19	19	00
3	24	11	7	28	13	30	15	62	25	1	07	19	30
4	30	47	6	36	14	00	16	63	23	0	58	20	00
5	36	30	5	43	14	30	17	64	16	0	53	20	30
6	41	22	4	52	15	00	18	64	55	0	39	21	00
7	45	29	4	07	15	30	19	65	25	0	30	21	30
8	49	01	3	32	16	00	20	65	47	0	22	22	00
9	51	58	2	57	16	30	21	66	06	0	19	22	30
10	54	29	2	31	17	00	22	66	20	0	14	23	00
11	56	37	2	12	17	30	23	66	28	0	08	23	30
12	58	26	1	49	18	00	24	66	31	0	03	24	00
<i>Climates between the Polar Circles and the Poles.</i>													
1	67	31	1	00	1	Mo.	4	78	20	5	00	4	Mo.
2	69	31	2	00	2	Mo.	5	84	00	5	40	5	Mo.
3	73	21	3	50	3	Mo.	6	90	00	6	00	6	Mo.



WORLD.

GEOGRAPHY is a science which teacheth the description of the earth. It differs from *Cosmography* as a part from the whole and from *Chorography* and *Topography* as the whole from its parts.

The earth is a spherical body, which together with the water make up one globe of so perfect and exact a form, and so beautified and adorn'd by the God of nature, that from its eligancy and beauty, it was called by the *Greeks*, *Κόσμος*, and by the *Latins*, *Mundus*.

It is situated, according to *Ptolomy*, and *Tycho*, in the centre of the world, but according to *Copernicus*, between the orbs of *Mars* and *Venus*; its subsistence so wonderful, as may well express that unlimited Power that performs infinitely beyond our imagination.

As to its magniude, it is 21600 miles in circuit, (allowing according to the vulgar account 60 to a degree;) its diameter 6872 miles; its semidiameter 3436; its superficies in square miles 148510584, and its solid content 169921796242 cubical miles.

For the better understanding all its parts, it may be divided into four general heads, viz 1. its Imaginary parts; 2. its Real parts; 3. in respect of its Inhabitants; and 4 its National parts.

1. Imaginary Parts.

The imaginary parts are only supposed for the clearer understanding of this science; they are, 1. *Poles*, 2. *Circles*, 3. *Zones*, and, 4. *Climes*.

1. The *Poles* are the extreame points of the Axis, which is supposed to pass through the centre of the earth.

and on which it is supposed to move daily about. They answer to the poles of the heavens (as the other imaginary parts) being the furthest distant from the *Æquator*; in number two, viz. 1. The *Arctick*, or north pole; and 2. The *Antarctick*, or south pole

2. The circles are divided into the greater and lesser; the greater divide the world into two equal parts; number four, viz. 1. The *Æquator*, compassing the earth equally between (and furthest from) the *Poles*; when the sun is here, the days and nights are equal. 2. The *Zodiack*, (in which is the *Ecliptick*) cutting the *Æquator* obliquely, thorough which the sun passes in a year. These two are immoveable. 3. The *Horizon*, dividing the visible parts of the heavens from the invisible. 4. The *Meridian*, dividing the horizon into two equal parts: when the sun is here, it is noon. These two are moveable.

The lesser circles divide the world into two unequal parts; they are, 1. The *Tropicks*, which terminate the sun's distance from the *Æquator*, being 23 degr. and half from it: when the sun is here, it is either summer or winter. They are two, viz. of *Cancer* on the north, and of *Capricorn* on the south side of the *Æquator*. 2. The *Polar Circles*, 66 degr. and one half of the *Æquator*, and 23 and one half of the *Poles*; they are called the *Arctick* and *Antarctick* circles. 3. The *Parallels*, which are parallel to the *Æquator*, set in maps to shew the *Latitude*, as the *Meridian* lines are to shew the *Longitude* of places. [Note, that *Latitude* is the distance from the *Æquator*, and *Longitude* from the first *Meridian*, made commonly at the *Canary Isles*.]

3. The *Zones* are certain spaces of earth, included between two lesser circles. In number five; viz. one *Torrid Zone*, which lies between the *Tropicks*; two *Temperate Zones*, between the *Tropicks* and *Polar Circles*; and two *Frigid Zones*, between the *Polar Circles* and the *Poles*.

4. A *Clime*, or *Climate*, is a space of earth, between two parallels, in which the longest day is increased half an hour: as for example, in the first *Clime*, the longest day is 12 hours and an half; in the second, 13 hours; in

in third, 13 hours and a half, &c. they are in number 24, that is from the *Æquator* to the *Polar Circles*.

2. Real Parts.

The real parts are such as have a real existence upon the superficies of the earth. Divided into, 1. *Water*, and 2. *Land*.

1. *Water* is divided into, 1. *Ocean*, called a general collection or rendezvous of all waters, giving bounds to the four *Regions* of the earth. 2. *Sea*, a part of the *Ocean* incompassed with land, except one *Streight*, such as the *Mediterranean*, and *Baltick*. 3. *Streight*, a part of the ocean, restrained into narrow bounds, opening the way to a sea, as those of *Magalonica* and *Gibraltar*. 4. *Lake*, a large space of water wholly incompassed with land, as *Parima* and *Zaire*. 5. *Creek* or *Gulf*, a crooked shore, thrusting forth as it were two arms to hold the sea, as those of *Venice* and *Lepanto*; as for *Rivers*, *Ditches*, *Brooks*, *Fountains*, &c. need no description.

2. *Land*, divided into, 1. *Continent*, a vast tract of land where many nations are joined together, as *Europe*, *Asia*, &c. 2. *Island* a space of land, wholly incompassed with sea, as *Britain*, *Japan*, &c. 3. *Peninsula*, a space of land, incompassed with sea, except one small part, as *Morea*, *Malacca*, &c. 4. *Isthmus*, is that space of land that joins a peninsula to a continent. 5. *Promontory*, a mountain shooting it self into the sea, the end of which is called a *Gape*, as the *Cape of Good Hope*, *Cape Verde*, &c. As for *Mountains*, *Rocks*, *Valleys*, *Fields*, *Forests*, *Woods*, *Plains*, &c. are all well known.

3. Inhabitants.

The earth is divided in respect of its Inhabitants, into the right hand and left. 1. To *Poets*, the north was counted the right hand, and the south the left. 2. To *Priests*, the south is the right hand, and the north the left. 3. To *Astronomers*, the west is the right hand, and the east the left. And, 4. to *Geographers*, the east is right, and the

west the left. The inhabitants themselves are distinguished; 1 In respect of their *Situation*. 2 According to their *Shadows*. 3 In respect of the *Position of the Globe*. And, 4 According to the countries.

1. Those according to their *situation* are divided into; 1 *Antæci*, which lie under the same *Meridian*, and same *Longitude*, but on different sides of the *Æquator*. 2 *Periæci*, which live on the same side of the *Æquator*, and the same *Latitude*, but on opposite sides of the *Globe*. 3 *Antipodes*, that live diametrically opposite to each other.

2. Those according to their *Shadows*, are divided into; 1 *Amphiscii*, (called also *Ascii*) who live on the *Torrid Zone*, whose shadows tend both ways. 2 *Periscii*, which live in the *Frigid Zones*, whose shadows tend all ways. 3 *Heteroscii*, in the *Temperate Zones*, whose shadows tend but one way.

3. Those according to the *Position of the Globe*, are distinguished into; 1 Such as live in a *Right Sphere*, (under the *Æquator*) where the stars rise and set at right angles. 2 Such as live in an *Oblique Sphere*, (between the *Æquator* and *Poles*) where the stars rise and set obliquely. 3 As live in a *Parallel sphere*, (under the *Poles*) where the stars are always parallel to the *Horizon*.

4. Those according to the countries, are distinguished into a great many nations and peoples, as *French*, *Spaniards*, *Italians*, *Germans*, &c. all which shall be more particularly treated of afterwards.

4. National Parts.

The earth in respect of its countries is divided into four parts, viz. 1 *Europe*, 2 *Asia*, 3 *Africa*, and, 4 *America*; to which are added, 5 *Terra boræales incognita*, and 6 *Terra australes incognita*. Those are divided into *Empires*, *Kingdoms*, *Regions*, *Countries*, *Nations*, &c. Subdivided into *Provinces*, *Governments*, *Profectures*, *Circles*, *Territories*, *Districts*, *Counties*, &c.

As for the *Empires*, there are six of special note at present, viz. *Turky*, *Russia*, *Persia*, *Tartary*, *India*, and *Abissina*; to these we may add three others that go by that

that name, viz. *Germany*, *Morecco*, *Monomotopa*. The description of these, with the Kingdoms, inferior provinces, and sovereignties, is the main design of this book.

Countries are for the most part divided according to princes *Dominions*, (but not always so;) they are separated from each other, 1. Sometimes by sea, as *Germany*, and *Denmark* from *Swedeland*, 2. Sometimes by rivers, as *Natolia* from *Turcomania*, 3. Sometimes by mountains, as *France* from *Spain*, 4. Sometimes by walls, as *China* from *Tartary*, and, 5. Sometimes divided only according to the towns and forts of the princes, as *France* from the *Low-Countries*. Thus much for the world in general.



I. EUROPE.

EUROPE has on the north, the Frozen Ocean; on the west the *Deucalidonian* and Western Ocean; on the south the *Mediterranean* Sea; and on the east *Asia*; from which it is parted by the *Archeipelago*, the *Euxine* Sea, and *Palus Meotis*; the rest is uncertain. Situated between the 7th and 100th deg. of longitude, and between the 34th and 72d deg. of latitude; being in length from Cape *St. Vincent* in *Portugal*, to the mouth of the river *Oby* in *Russia*, about 3300 miles; and in breadth, from Cape *Matapan* in *Morea*, to the north Cape in *Norway*, about 2200 miles.

It is the least part of the four, but far the more noble, being the most populous and civilized, adorned with many large and glorious cities, enriched with the most necessary commodities, and abounding with all the riches, pleasures and plenty, that the most voluptuous man can wish for. Famous, 1. for the Roman and Greek monarchies; 2. For its political governments;

3. For its temperature and fertility; 4. For its arts and sciences; and 5. For the purity of the Christian faith.

The arts peculiar to *Europe*, and there invented, may be reckoned painting, printing, statuary, and divers particulars in the art of navigation and war, and most especially in scholastic sciences. Besides these, may be counted the noble invention of guns, the loadstone, and many other things too long to be here nam'd.

The religions of *Europe* may be reduced into five heads; viz. 1. The Reformed or Protestant; 2. Roman Catholic; 3. That of the Greek church; 4. The Mahomitan; and 5. The Jewish. The languages are reduced into three chief parts; viz. 1. The Teutonick, divided into English, Dutch and Danish; 2. Latin, corrupted into French, Spanish and Italian; and 3. Sclavonian, divided into Russian, Polish and Turkish. There are several others of less note, as Welsh, Hungarian, Finnick, Irish, Epirotick, &c. which shall be all spoken of afterwards.

It is under the Government of three Emperors; viz. *Turky, Russia and Germany*; seven Kings, viz. *England, France, Spain, Portugal, Denmark, Swedeland, and Poland*; one Pope of *Rome*; six Dukes, (besides *Lorraine* and those of the Empire) viz. *Tuscany, Savoy, Modena, Mantua, Parma, and Gurland*; seven Commonwealths, (besides that of *St. Marino*) viz. the *United Provinces, Switzerland, Venice, Genoua, Ragusa, Luca, and Geneva*; besides many inferior princes, imperial cities, &c.

Rivers of chief note are six; viz. 1. *Danow*, 2. *Wolga*, 3. *Dwina*, 4. *Boristhines*, 5. *Rhine*, and 6. *Loyre*.

Mountains of greatest account are four; viz. 1. the *Alps*, 2. *Pirenean Mountains*, 3. *Dofrine Hills*, and 4. *Carpathean, or Crapack Mountains*.

Lakes of principal note are reckoned three, viz. 1. *Ladoga*, 2. *Onega*, and 3. *Wener*.

Europe may be divided into twelve parts; viz. 1. *Spain*, 2. *Portugal*, 3. *France*, 4. *Italy*, 5. *British Isles*, 6. *Low-Countries*, 7. *Germany*, 8. *Denmark*, 9. *Swedeland*, 10. *Russia*, 11. *Poland*, and 12. *Turky in Europe*.

I. SPAIN.

I. SPAIN.

THE kingdom of *Spain* lies on the west of *Europe*, and on the south-west of *France*; in form of a peninsula, being encompassed on three sides with sea. Situated between the 7th and 22d deg. of lon. and between the 36th and 44th of lat. being in length from Cape *Creus* in *Catalonia*, to Cape *Finestro* in *Gallicia* 630 miles; and in breadth from *Gibraltar* in *Andaluzia*, to Cape *Pennas* in *Asturia* 480 miles. Together with *Portugal*, it made the Roman Diocess of *Hispania*, sometimes called *Hesperia*, *Iberia*, and *Celtiberia*.

The inhabitants descend from the *Goths*, *Moors*, *Jews*, and old *Spaniards*, and are all Roman Catholicicks. Their language, the vulgar *Spanish* or *Castilian*, a manly language, composed of *French*, *Latin*, *Gothish*, *Arabick*, and old *Spanish*. In *Biscay* they still speak the old *Cantabrian*, and the *Arabick* is used in the mountains of *Granada*. Their chief commodities are wines, oil, sugar, metals, rice, silk, liquorish, honey, flax, saffron, aniseed, raisins, almonds, oranges, lemons, cork, soap, anchovies, sumach, wool, lamb-skins, tobacco, &c. It is divided into 14 provinces, which are,

1. Kingdom of *Gallicia*, 2. Principality of *Asturias*, 3. Principality or Lordship of *Biscay*, 4. Kingdom of *Navarre*, 5. Kingdom of *Arragon*, 6. Principality of *Catalonia*, 7. Kingdom of *Valencia*, 8. Kingdom of *Murcia*, 9. Province of *New Castile*, 10. Province of *Old Castile*, 11. Kingdom of *Leon*, 12. *Extremadura*, 13. Kingdom of *Andalusia*, 14. Kingdom of *Granada*. To these we may add the Spanish isles, which lie in the *Mediterranean* sea.

Rivers of chiefest note are five, viz. 1. *Tejo*, 2. *Ebro*, 3. *Douro*, 4. *Guadiana*, 5. *Guadalquiver*.

Chief mountains (besides the *Pirenean Hills*) are, 1. *Siera Morina*, and 2. *Siera Nevada*.

Archbishopsricks 8, Bishopsricks 42, Universities 20.

II. P O R.

II. PORTUGAL.

THE Kingdom of *Portugal*, properly a part of *Spain*, lies along the Western Ocean, on the W. of *Leon*, *Extremadura*, and *Andaluzia*; and on the south of *Gallicia*; situated between the 7th and 11th deg. and 10th min. of lon. and between the 36th and 50th min. and the 42 deg. and 20 min. of lat. being in length from N. to S. 360 miles; and in breadth, from E. to W. 135 miles, in some places but 80 and 60 miles broad.

The inhabitants, as well as those of *Spain*, are all *Roman Catholics*. Their language is much the same with the *Castilian* or vulgar *Spanish*, only it has somewhat more of the French than that. Their chief commodities are wine, honey, oil, allum, white marble, salt; as also variety of fruits, as oranges, almonds, citrons, pomegranates, &c. It contains six provinces, which are,

1. *Entre Minho Douro*, 2. *Tralos Montes*, 3. *Beira*,
4. *Esremadura*, 5. *Alen Tejo*, or *Entre Tejo Guadiana*,
6. Kingdom of *Algarve*.

Rivers of principal note are three, viz. 1. *Tejo*, 2. *Douro*, and 3. *Guadiana*.

I find no mountains of note.

Archbishopricks 3, Bishopricks 10, Universities 2.

III. FRANCE.

THE kingdom of *France* is a famous country, lying on the N. E. of *Spain*, and W. of *Germany*, and part of *Italy*, almost in form of a square, washed on two sides with sea; situated between the 13th and 27th and 10 min. of lon. and between the 51st and 6 min. and.

and the 42 and 15 min. of lat. being in length from the W. parts of *Bretagne*, to the E. parts of *Provence*, 650 miles; (from *Calais* to *Toulon* 560) and the breadth from the borders of *Biscay* in *Spain*, to the N. E. parts of *Lorraine*, 550 miles; (from *Brest* to *Salm* 540).

The inhabitants are for the most part *Roman Catholics*; the remainder (much fewer than formerly) are protestants, and mostly *Calvanists*: their language is the vulgar *French*; a very soft language, composed of old *Gallick*, (the same with the *Welsh*) *German*, and *Latin*: in some parts of *Bretagne* they use the *British* or *Welsh*. Their chief commodities are salt, fish, corn, wine, almonds, coral, canvas, oade, linen, paper, wood, skins, lutestring, and rich flowered silks, verdegris, cremor tartaris, &c. It is divided into 14 governments, besides the conquests, which are,

1. Government of *Picardy*, 2. Government of *Champagne*, 3. Government of the isle of *France*, 4. Government and D. of *Normandy*, 5. Government and D. of *Bretagne*, 6. Government of *Orleanois*, 7. Government of *Burgundy*, 8. Government of *Lionois*, 9. Government of *Guienne* and *Gascony*, 10. Government of *Languedoc*, 11. Government of *Dauphine* or *Dauphinate*, 12. Government of *Provence*, 13. Dukedom of *Lorraine*, 14. *Franche-Comte*.

Rivers of principal note are four, viz. 1. *Loyre*, 2. *Seyne*, 3. *Garoud*, and 4. *Rhofne*.

Chief mountains (besides the *Pirenean* hills) are *Severnes* in *Languedock*, and *Vauge* in *Lorraine*.

Archbishopsricks 17, Bishopsricks 104, Universities 20.

IV. ITALY.

I*taly*, one of the most famous countries in *Europe*, lying on the S. E. of *France*, and S. of *Germany*, encompassed on 3 sides with sea, is situated between the 45th and the 40th, and 40 min. of lon. and between the 37th and 36 min. and 46th and 10 min. of lat. It is almost

almost in form of a man's leg, being in length from *Geneva* to *Otranto* (N. W. and S. E.) 760 miles; and in breadth from *Nice* to *Trieste* 380, from *Ancona* to *Civita-Vechia* 134, and from *PolICASTRO* to *Barletta* but 75 miles. In this extent were comprehended the old dioceses of *Rome*, the greatest part of that of *Italy*, with some of *Gaul*.

The inhabitants are all Roman Catholics, except some few Protestants in the N. W. parts; their language is the vulgar *Italian*, very courtly and fluent, composed of *Latin* and old *Italian*, with some *Lombardian* in the N. some *Gothish* in the middle, and a little *Greek* in the S. E. In *Savoy* and *Piedmont* the French is most used. Their chief commodities are wines, corn, rice, silks, velvets, taffaties, sattins, grograms, fustians, gold wire, allum, armour, glasses, and such like. It is divided into three parts besides the isles, viz. *Higher*, or *Lombardy*; *Middle*, and *Lower*, or *Naples*. These contain 12 provinces, which are,

1. Dukedom of *Savoy*, 2. Principality of *Piedmont*, 3. Dukedom of *Montferrat*, 4. The State of *Genoa*, 5. Dukedom of *Milan*, 6. Dukedom of *Parma*, or *Parમેse*, 7. Dukedom of *Modena*, 8. Dukedom of *Mantua*, 9. Commonwealth of *Venice*. These nine provinces (together with the Bishoprick of *Trent*) go by the general name of *Lombardy*; the five first make the higher, and the four last the lower *Lombardy*.

10. State of the Church, or the Popedom, 11. Great Dukedom of *Tuscany*, 12. Kingdom of *Naples*.

The Italian isles are chiefly these,

1. Kingdom of *Sicily*, 2. Kingdom and Island of *Sardinia* or *Sardegna*, 3. *Corfica*.

Rivers of principal note are four; viz. 1. *Po*, 2. *Adige*, 3. *Tiber*, and 4. *Arno*.

Chief mountains are the *Alps* and *Apennine*.

Chief lakes are, 1. *Garda*, 2. *Como*, 3. *Magjore*, 4. *Iseo*, 5. *Lugato*, 6. *Perugia*, 7. *Celano*, and 8. *Balseno*.

Patriarchs three, viz. *Rome*, *Venice*, and *Aquileja*.

Archbishopricks, Bishopricks, Universities.

V. BRITISH ISLES.

THE *British* isles, or the *English* dominions, lie in the western ocean, on the N. of *France*, and W. of *Denmark*, *Germany* and *Low-Countries*. Situated between the 8th and 20, and 35 min. of lon. and between the 50th and 59th degree of lat. Under this name are comprehended four distinct parts, besides the lesser isles; viz. 1. *England*, 2. *Wales*, 3. *Scotland*, and 4. *Ireland*.

I. ENGLAND.

The kingdom of *England* lies on the S. of *Scotland*, and N. of *France*, from which it is divided by the Channel, of a triangular form, incompassed on 3 sides with sea. In length from N. to S. about 325 miles, and in breadth from E. to W. about 300, containing about 27 millions of acres.

The inhabitants are mostly of the Reformed religion, here taught in its purity, (the divisions I forbear to mention) some few are Papists; their language is a branch of the *Teutonick*, chiefly composed of old *Saxon*, *Latin* and *French*. The chief commodities are corn, cattle, tin, copper, lead, iron, timber, coals, abundance of wool, stuffs, linnen, hides, tallow, butter, cheese, beer, &c. It is divided into six circuits, viz.

1. Northern circuit, 2. Midland circuit, 3. Oxford circuit, 4. Norfolk circuit, 5. Home circuit, 6. Western circuit.

Rivers of principal note are three, viz. 1. *Thames*, 2. *Severn*, and 3. *Trent*.

Mountains of greatest account are three, viz. 1. *Ingleborough*, 2. *Pendle*, and 3. *Pennegent*.

Archbishopricks 2. Bishopricks 20. Universities 2.

An Account of the several Counties of *England* and *Wales*, with their Produce, Market-Towns, and Market-Days, &c.

Note, *m* stands for Monday, *tu* for Tuesday, *w* for Wednesday, *th* for Thursday, *f* for Friday, and *s* for Saturday.

Bedfordshire.

AN inland county, in *Lincoln* diocese, 73 miles in circumference, is a fruitful country, well stored with corn and cattle, especially in the north parts. It produces barley and wheat as good, if not the best in *England*.

Market-Towns.

BEDFORD, the shire-town, Tuesday and Saturday.

Dunstable *w*

Woburn *f*

Amphill *th*

Leighton *tu*

Luton *m*

Shefford *f*

Biggleswade *tu*

Potton *f*

Tuddington *f*

Berkshire.

An inland county in the diocese of *Salisbury*, and a pleasant country, 120 miles round, where the air is good, and the soil fruitful. It yields plenty of corn, cattle, wild-fowl, wool, and wood, especially oak.

Market-Towns.

READING, the shire-town, Saturday.

Abingdon *m* and *f*

Windfor *f*

Wallingford *tu* and *f*

Maidenhead *w*

Hungerford *w*

Newbury *th*

Faringdon *tu*

Wantage *f*

East-Isley *w*

Langbourn

Oakingham *tu*

Buckingham.

Buckinghamshire, or Bucks.

Another inland county in *Lincoln* diocese; 138 miles in circuit, is very plentiful both in corn and pasture, particularly the famous *Vale of Aylesbury*, which feeds an infinite number of sheep yielding excellent wool. The *Tame*, *Ouse*, and *Coln*, are its principal rivers.

Market-Towns.

BUCKINGHAM, the chief, Saturday.

Aylesbury /	Beaconsfield <i>th</i>
High Wigcomb <i>f</i>	Chesham <i>w</i>
Colebrook <i>w</i>	Risborough <i>f</i>
Stony Stratford <i>f</i>	Amerham <i>tu</i>
Oulney <i>m</i>	Newport-Pagnel <i>f</i>
Marlow <i>f</i>	Ivingo <i>f</i>
Wendover <i>th</i>	Winflow <i>th</i>

Cambridgeshire.

An inland county, in the diocese of *Ely*, 130 miles in circumference, abounds in corn and pasture, fish, wild-fowl and saffron. 'Tis true, the north part of it called the *Isle of Ely*, is full of marshes, and subject to small inundations, which makes it unhealthful, and yield but little corn: but this defect is richly supplied with plenty of cattle, fish and wild-fowl. *Cambridge* is remarkable for a famous University, containing 12 colleges and 4 halls, and are as followeth.

Peter House,	Founded in	1284. by Hugh de Balsam, Bishop of Ely.
Corpus Christi, or Bennet col.		1346. by Henry of Monmouth, Duke of Lancaster.
Convile and Caius		1348. and so named from its founders.
King's college		1441. by King Henry VI.
Queen's college		1448. by Margaret, Wife to Henry VI.
Jesus college		1497. by L.L.D. Bp. of Ely.
		Y Christ's

<i>Christ's college</i>	} Founded in	1506. by Margaret Countess of Richmond, Mother of H. VII.
<i>St. John's col.</i>		1506. by the same.
<i>Magdalen col.</i>		1542. by Ed. Stafford, the last D. of Buckingham of that name.
<i>Trinity college</i>		1546. by King Henry VIII.
<i>Emanuel college</i>		1584. by Sir Walter Mildman, Chancellor of the Exchequer.
<i>Sidney Sussex col.</i>		1598. by Frances Sidney, Countess of Sussex.

HALLS.

<i>Clare Hall</i>	} Founded in	1343. by Richard Badew.
<i>Pembroke Hall</i>		1347. Mary de St. Paul, Countess of Pembroke.
<i>Trinity Hall</i>		1353. by William Bateman, Bp. of Norwich.
<i>Katherine Hall</i>		1459. by Robert Wood, Chancellor of the University.

Market-Towns.

CAMBRIDGE, Saturday.

<i>Ely f.</i>	<i>Merche f</i>
<i>Caxton tu</i>	<i>Royston w</i>
<i>Newmarket tu</i>	<i>Wisbich f</i>
<i>Linton th</i>	<i>Soham f</i>

Cheshire, or county of Chester.

A maritime county, in the diocese of *Chester*, 112 miles round. It yields more pasture than corn, and is for the most part level; its greatest hills being those which part it from *Stafford* and *Derby* shire. There are in it several forests, particularly *Delamere* and *Macclesfield* forests: and so great a number of parks, that few gentlemen's country seats are without one.

There are also many heaths, in which both sheep and horses feed; and some mossy plots which make good turf to burn.

Its principal rivers are the *Dee*, which waters the S. W. parts; the *Wever* running through the middle; and the *Mersey* northward.

Cheese

Cheefe and salt are the chief product of this county, and both in great request all over *England*. et
f

Market-Towns.

CHESTER, the capital, Wed. and Sat.

Nantwich <i>f</i>	Stockport <i>f</i>
Middlewich <i>f</i>	Sandwich <i>th</i>
Northwich <i>f</i>	Altringham <i>tu</i>
Macclesfield <i>m</i>	Malpas <i>m</i>
Congleton <i>f</i>	Knotsford <i>f</i>
Fordeſham <i>w</i>	

Cornwall.

A maritime county, in the diocese of *Exeter*, is the most western county of *England*, furrounded with the sea on the N. S. and W. and parted from *Devonſhire*, eastward by the *Tamer*, all but a slip of land; so that 'tis a perfect peninsula, 150 miles in circumference: but is none of the most fruitful parts of *England*. 'Tis true; its valleys are full of corn and pasture, and the hills famous for their tin and copper mines; and it abounds in wild-fowl, and the seas thereof in fish. It yields also plenty of ſamphire, eringo, fine ſlate and marble.

Market-Towns.

LANCESTON, the chief, Sat.

Leskard <i>f</i>	Truro <i>w</i> and <i>f</i>	Helſton <i>f</i>
Leſtwithiel <i>f</i>	Bodmin <i>f</i>	Saltash <i>tu</i>
Camelford <i>f</i>	Fouay <i>f</i>	St. Columb <i>th</i>
Weſtlow, <i>or</i>	Kellington <i>w</i>	Market-Jew <i>th</i>
Port Pigham <i>f</i>	St. German <i>f</i>	Padſtow <i>f</i>
Gram-pound <i>f</i>	Newport <i>f</i>	Penzance <i>th</i>
Eastlow <i>f</i>	Tregony <i>f</i>	Falmouth <i>th</i>
Penryn <i>w, f, & f</i>	St. Ives, <i>w</i> and <i>f</i>	Stratton <i>tu</i>

Cumberland.

A maritime county in the N. of *England*, and in the diocese of *Chester* and *Carlisle*, is bounded northward with *Scotland*, and westward with the *Irish* sea, and is 168 miles round. It yields plenty of corn, pasture, wild-fowl, fish, coal-pits, and mines of copper and lead.

Market-Towns.

CARLISLE, the chief, Saturday.

Cockermouth <i>tu</i>	Alston-Moor <i>f</i>
Whitehaven <i>th</i>	Ireby <i>th</i>
Kelwick <i>f</i>	Kirk-Ofwald <i>th</i>
Penrith <i>tu</i>	Longtown <i>th</i>
Brampton <i>tu</i>	Ravenglas <i>f</i>
Holm <i>f</i>	Wigton <i>tu</i>
Egermont <i>f</i>	

Derbyshire.

An inland county northward in the diocese of *Litchfield*, and *Coventry*, 120 miles in circuit, is a plentiful country of pasture, corn and wood. Here are also quarries of free-stone, marble, mill, lime, whet stones, coal, lead and iron mines, crystal and alabaster.

The River *Darwent*, which glides through this county from N. to S. and falls into the *Trent*, divides it into two parts, east and west.

Market-Towns.

DERBY, the shire-town, Frid.

Chesterfield <i>f</i>	Ashbourn <i>f</i>
Wirksworth <i>tu</i>	Bakewell <i>m</i>
Bolsover <i>f</i>	Dronsfild <i>th</i>
Alfreton <i>m</i>	Tiddeswall <i>w</i>

Devonshire.

A maritime county in the diocese of *Exeter*, 200 miles in circumference. It lies in the W. of *England*, borders

ders upon *Cornwall*, and is watered on two sides with the sea, *viz.* N. and S. The air very good, and the soil for the most part fruitful; but there are both hills and woods. This county abounds chiefly in corn, pasture, wool, wild-fowl, and sea-fish. There are also tin and lead-mines. Its chief manufactures are kerseys, serges, and lace.

Market-Towns.

EXETER, the capital, Wed. and Sat.

Barnstaple <i>f</i>	Topsham <i>f</i>	Dodbrood <i>w</i>
Dartmouth <i>f</i>	Axminster <i>f</i>	Hartland <i>f</i>
Honiton <i>f</i>	Autrey <i>tu</i>	Hatherly <i>tu</i>
Oakhampton <i>f</i>	Bampton <i>f</i>	Holdsworthy <i>f</i>
Plimpton <i>f</i>	Bow <i>f</i>	Kingsbridge <i>f</i>
Tavistock <i>f</i>	Chimleigh <i>th</i>	Kirton <i>th</i>
Tiverton <i>tu</i>	Cudleigh <i>f</i>	Modbury <i>th</i>
Plimouth <i>m & th</i>	Columpton <i>f</i>	Moreton <i>f</i>
Tornes <i>f</i>	Combmartin	Newton <i>th</i>
Ashburton <i>f</i>	Culliton <i>th</i>	
Biddiford <i>tu</i>	Torrington <i>f</i>	

Dorsetshire.

A maritime county upon the *Channel*, lies east of *Devonshire*, in the diocese of *Bristol*, 150 miles in compass. 'Tis a pleasant and fruitful country, yielding plenty of corn, pasture, cattle, wild-fowl, and fish: also abundance of hemp, and quarries of free-stone and marble.

Market-Towns.

DORCHESTER, the capital, Sat.

Weymouth <i>tu</i>	Pool <i>m and th</i>	Cerne <i>w</i>
and <i>f</i>	Warham <i>f</i>	Frampton <i>th</i>
Melcomb-Regis	Corfe-Castle <i>th</i>	Sherborn <i>tu & f</i>
<i>tu and f</i>	Cranborn <i>w</i>	Milton <i>m</i>
Bridport <i>f</i>	Blandford <i>f</i>	Stalbridge
Shaftsbury <i>f</i>	Abbotsbury <i>th</i>	Winbourn <i>f</i>
Bere <i>w</i>	Sturminster <i>th</i>	

Durham.

A maritime, northern county, commonly named the *Bishoprick of Durham*, 107 miles in circuit. The air is sharp, and the soil not very fruitful. The E. side is the best, the S full of marshes, and the W. full of rocks. The greatest advantage of this county consists in coal, iron, and lead mines.

Market-Towns.

DURHAM, the capital, Saturday.

Aukland <i>th</i>	Hartlepool <i>m</i>
Stockton <i>f</i>	Stainthorp <i>tu</i>
Sunderland <i>f</i>	Bernard-Castle <i>w</i>
Darlington <i>m</i>	

Essex.

A maritime county in the E. part of *England*, and the diocese of *London*, called *Essex* from the *East-Saxons*, by whom it was inhabited. It is about 146 miles in compass. Here the air is temperate, but near the sea and *Thames* very moist and agueish. The soil yields plenty of corn, cattle, and wood. Here is also abundance of fish and wild-fowl. In the N. parts saffron grows to admiration. And there are some parts, the soil of which is so rank, that after three crops of saffron, it yields good barley for near 20 years together, without compost.

This county is watered by a great number of rivers, besides the *Thames* that parts it from *Kent*, the *Stoure* from *Suffolk*, the *Lea* from *Middlesex*, and the little *Stoure* from *Hartfordshire*; here's the *Coln*, *Chelmer*, *Crouch*, *Roding*, and many other rivers, all yielding plenty and variety of fish.

Market-Towns.

COLCHESTER, the county-town Sat.

Harwich <i>tu</i>	Maldon <i>f</i>	Chelmsford <i>f</i>
Barking <i>f</i>	Hatfield <i>f</i>	Rumford <i>w</i>
Billerica <i>tu</i>	Witham <i>tu</i>	Ingerstone <i>w</i>
		Wat.

Walden <i>f</i>	Epping <i>th</i> and <i>f</i>	Braintree <i>w</i>
Billicicay <i>tu</i>	Burnwood <i>th</i>	Dunmore <i>f</i>
Cogeshall <i>f</i>	Grayes <i>th</i>	Halfstead <i>f</i>
Horndon <i>f</i>	Raleigh <i>f</i>	Waltham Abbey <i>tu</i>
Mainningtree <i>tu</i>	Thaxted <i>f</i>	Sudbury <i>f</i>

Glocestershire.

An inland county in the diocese of *Glocester*, 138 miles round, is a fine, fruitful, and delightful country. The hills on the E. side, called *Cotswold*, are covered with flocks of sheep, whose wool is called the finest in *Britain*. The middle parts are level, and watered by the *Severn*, which contributes much to their fertility. Westward is the ancient forest of *Dean* formerly 20 miles long: but now much less; the iron mines having consumed a great part of it.

Besides the *Severn*, which crosses this country from N. to S. here is the *Avon* that parts it from *Somersetshire*, the *Wye* that partly divides it from *Monmouthshire*, besides the *Stroud* and the *Isis*; all very fishy rivers; the *Severn* yielding plenty of salmon.

Formerly the vales of this county were full of vineyards, which have been since turned into orchards, yielding plenty of apples for cyder.

In short, this county abounds in corn, wool, wood, iron, cyder and salmon. Among its manufactures, the woollen is most considerable. Here is also made great quantity of good cheese.

Market-Towns.

GLOCESTER, the shire-town, Wed. and Sat.

Cirencester <i>m</i> and <i>f</i>	Tewksbury <i>f</i>	Blackley <i>w</i>
Dursley <i>th</i>	Camden <i>w</i>	Newnham <i>f</i>
Stroud <i>f</i>	Cheltenham <i>f</i>	Letchlade <i>tu</i>
Newent <i>f</i>	Sudbury <i>th</i>	Panwick <i>tu</i>
Stow <i>th</i>	Tedbury <i>w</i>	Wickware <i>m</i>
Thornbury <i>f</i>	Winchcomb <i>f</i>	Wotton <i>f</i>
Marshallfield <i>tu</i>	Morton <i>f</i>	Dean <i>m</i>
Fairford <i>th</i>	Northleech <i>w</i>	

Hamp-

Hampshire, Hants, or Southampton.

This is a maritime county, on *St. George's* channel, between *Sussex East* and *Dorset West*, in the diocese of *Winchester*, 100 miles in circuit. It is a pleasant and fruitful country, yielding plenty of corn, grass, wool, wood, and iron; and particularly noted for the excellency of its honey and bacon.

On the W. side 'tis watered by the *Aven* and the *Stour*, which meet near the sea; and on the E. by the *Test* and the *Itchin*, that join near *Southampton*.

Market-Towns.

SOUTHAMPTON, the shire-town, Tu. and Fr.

Winchester *w* and *f*

Portsmouth *th* and *f*

Andover *f*

Limington *f*

Petersfield *f*

Stockbridge *th*

Whitchurch *f*

Newport *w* and *f*

Alton *f*

Farnham *th*

Basingstoke *w*

Kingsclear, *tu*

Ringwood *w*

Odiham *f*

Rumsey *f*

Waltham *tu*

Alestone *th*

Hartfordshire.

An inland county, in the diocese of *London* and *Lincoln*, 130 miles round, is a fine delightful place; and has more gentlemens parks, then any other county. Here the inhabitants breathe a wholesome air, and the soil yields plenty of corn, grass, and wood. The *Lea* and *Coln* are its principal rivers; wheat, barley, and malt, its chief commodities, and, with *Bedfordshire*, the best in *Great-Britain*. The plowmen and farmers are outdone by none.

Market.

Market-Towns.

HARTFORD, is the county-town, Saturday.

St. Albans <i>f</i>	Baldock <i>th</i>
Barnet <i>m</i>	Hitchin <i>tu</i>
Ware <i>tu</i>	Hodsdon <i>th</i>
Barkhamstead <i>m</i>	Stevenage <i>f</i>
Rickhamsworth <i>f</i>	Tring <i>f</i>
Hatfield <i>th</i>	Watford <i>tu</i>
Buntingford <i>m</i>	Hempstead <i>th</i>
Standon <i>f</i>	

Herefordshire.

An inland county in *Hereford* diocese, towards *Wales*, in circuit 120 miles, abounds in all things necessary for life, particularly corn, wool, salmon, and cyder. Its wool and cyder are counted the best in *Great-Britain*; and yet the cyder is made of the *Red-streak* apple, scarce eatable, but growing no where so well as in this county.

Market-Towns.

HEREFORD is the capital Wed. Frid. Sat.

Lempster <i>f</i>	Pembridge <i>tu</i>
Weobly <i>th</i>	Ledbury <i>tu</i>
Kyniton <i>w</i>	Bromyard <i>m</i>
Rofs <i>th</i>	

Huntingdonshire.

An inland county in the diocese of *Lincoln*, by some nick named *Willowshire*, for its plenty of willow, is 67 miles round, was formerly a very woody county, and consequently most proper for hunting, whence the name of *Huntingdonshire*. Now 'tis open and marshy on the N E. but plentiful of pasture. In general, 'tis a pleasant country, diversified with hills, and yielding plenty of corn and cattle. Its principal river is the *Ouse*; now made navigable, whose beautiful meadows with such multitudes of cattle upon them, are well worth seeing.

Mark-

Market-Towns.

HUNTINGDON, the chief, Saturday.

St. Ives *m*
 Kimbolton *f*
 St. Neots *th*

Ramsey *w*
 Yarley *tu*

Kent.

A maritime county, at the E. part of the channel, in the diocese of *Canterbury* and *Rochester*, is 160 miles in compass. According to the different nature of its soil, 'tis divided into three parts, *viz.* the *Downs*, which have health without wealth; the *Marshy Parts*, that have wealth without health; and the *Middle*, that has health and wealth. One part of this county is *wood*, another *corn*, and the third *pasture*. Its soil yields plenty of *wheat* in some places, in some *barley*, and others, excellent *cherries* and *pippins*.

Market-Towns.

CANTERBURY (famous for its cathedral) is the capital Wednesday, and Saturday.

Rochester <i>f</i>	Cranbrook <i>f</i>	Sevenoak <i>f</i>
Maidstone <i>th</i>	Cray <i>w</i>	Tenterden <i>f</i>
Dover <i>w</i> and <i>f</i>	Dartford <i>f</i>	Malling <i>f</i>
Sandwich <i>w</i> and <i>f</i>	Eltham <i>m</i>	Milton <i>f</i>
Romney <i>th</i>	Eversham <i>w</i>	Tunbridge <i>f</i>
Smarden <i>f</i>	and <i>f</i>	Westram <i>w</i>
Hithe <i>f</i>	Folkstone <i>th</i>	Woolwich <i>f</i>
Bromly <i>th</i>	Gravesend <i>w f</i>	Wrotham <i>tu</i>
Wye <i>th</i>	Lenham <i>tu</i>	Ashford <i>f</i>
	Lidd <i>th</i>	

Sussex.

A maritime county upon the Channel, with *Kent* on the E. and *Hampshire* W. in *Chichester* diocese, is 158 miles round. Its downs, near the sea, are charming, and its valleys (called the wild of *Sussex*) very plentiful of oats especially. The forests are barren, but the E.

parts

parts yield abundance of iron, which has occasioned a vast consumption of wood. Here the roads are so deep in winter, that in some places, coaches must be drawn with oxen. This county is well watered, but with rivers of no long course. *Arun* is the principal. A *Sussex* carp, an *Arundel* mullet, an *Amerly* trout, and a *Chichester* lobster, are much admired. And so is the white-ear, a bird as good as a *French* Ortolan. Its principal manufactures are iron, guns and glass.

Market-Towns.

CHICHESTER is the chief, Wednes. and Sat.

East-Grinstead <i>th</i>	Petworth <i>w</i>
Hastings <i>w</i> and <i>f</i>	Steyning <i>w</i>
Rye <i>w</i> and <i>f</i>	Battle <i>th</i>
Arundel <i>w</i> and <i>f</i>	Hailsham <i>f</i>
Horsham <i>f</i>	Bright-Helmston <i>th</i>
Midhurst <i>th</i>	Cuckfield <i>f</i>
Lewes <i>f</i>	

Lancashire.

A maritime county in the diocese of *Chester*, bounded with the *Irish* sea, is 170 miles in circuit; of all maritime counties the least subject to fogs, and the inhabitants generally strong bodied. The soil is partly upon the level, yielding good wheat and barley, and the bottom of the hills excellent oats. But the hilly parts eastward are generally stony and barren.

Market-towns.

LANCASTER is the county-town, Saturday

Cliethero <i>f</i>	Blackbourn <i>m</i>	Haslingdon <i>w</i>
Liverpool <i>f</i>	Cartmel <i>m</i>	Garstang <i>th</i>
Preston <i>w, f</i> and <i>f</i>	Coln <i>w</i>	Kirkham <i>tu</i>
Wigan <i>m</i> and <i>f</i>	Bury <i>th</i>	Hornby <i>m</i>
Manchester <i>f</i>	Charnley <i>tu</i>	Howstead <i>m</i>
Warrington <i>w</i>	Dalton <i>f</i>	Ormskirk <i>tu</i>
Ulverston <i>th</i>	Roachdale <i>tu</i>	Poulton <i>m</i>
Bolton <i>m</i>	Hawkhead <i>m</i>	Perfscot <i>tu</i>

Leices-

Leicestershire.

An inland county, in the diocese of *Lincoln*, is 96 miles in circuit, enjoys a good air, and abounds in corn and pasture. and is particularly famous for pease and beans. Pasture land is so good, that here are many farms lett between 500 and 2000*l.* a year. The sheep and horses which are sent in such numbers to *London*, are undoubtedly the largest in *England*. It yields plenty of coal. Its principal rivers are the *Stoure*, *Reek*, and *Swift*.

Market-towns.

L E I C E S T E R is the county-town Saturday.

Ashby de la zouch <i>f</i>	Lutterworth <i>th</i>
Bosworth <i>w</i>	Longborough <i>th</i>
Harborough <i>tu</i>	Milton <i>tu</i>
Hallaton <i>th</i>	Mountsorrel <i>m</i>
Hinkley <i>m</i>	Waltham <i>w</i> and <i>th</i>
Balsdon <i>f</i>	

Lincolnshire.

A maritime county, in the diocese of *Lincoln*, bounded east with the *German* sea, is 180 miles in circuit. The north and west parts of it are most fruitful; the east and south marshy, yet abound in fish and wild-fowl.

Market-towns.

L I N C O L N is the capital Saturday.

Boston <i>w</i> and <i>f</i>	Binbrook <i>w</i>	Dunnington <i>f</i>
Grantham <i>f</i>	Alford <i>tu</i>	Falkingham <i>th</i>
Stamford <i>m</i> and <i>f</i>	Burton <i>m</i>	Holbeck <i>th</i>
Grimby <i>w</i>	Barton <i>m</i>	Horncastle <i>f</i>
Gainsborough <i>tu</i>	Kirton <i>th</i>	Louth <i>w</i> and <i>f</i>
Bullingbrook <i>tu</i>	Bourn <i>f</i>	Sleaford <i>m</i>
Spalding <i>tu</i>	Tattershall <i>f</i>	Spilsby <i>m</i>
Stanton <i>m</i>	Wainfleet <i>f</i>	Salsby <i>m</i>
Burgh <i>th</i>		

Middlesex.

Middlesex.

An inland county, in the diocese of *London*, the metropolis of *Great Britain*, is 81 miles in circumference. It has a sweet wholsom air, and fertil soil, much improved by the compost (or dung) of *London*. The *Thames* that waters it, and separates it from *Surrey*, is the principal river.

Market-Towns.

LONDON, the metropolis, hath markets for every day in the week.

Westminster <i>m w</i> and <i>f</i>	Uxbridge <i>th</i>
Brenford <i>th</i>	Enfield <i>f</i>
Stains <i>f</i>	Edgworth <i>th</i>

Monmouthshire.

A county in the diocese of *Landaff*, formerly *Welsh*, but now reckoned among the counties of *England*. It lies westward, on the borders of *Wales*, watered on the south by the *Severn*, which falls there into the sea. It is 80 miles in circuit; woody and hilly, but very plentiful; to which the rivers *Usk* and *Wye*, *Monnow* and *Runney*, contribute very much. The *Usk* and *Wye* yield plenty of salmon and trout.

Market-Towns.

MONMOUTH, the principal Saturday.

Abergavenny <i>tu</i>	Chepstow <i>f</i>	Pontpool <i>f</i>
Caerleon <i>tu</i>	Newport <i>f</i>	Uske <i>m</i> and <i>f</i>

Norfolk.

A maritime county, in *Norwich* diocese, bounded on the north and east with the *German* sea, is 140 miles in circumference. The soil is in some places fat, in some sandy, and in others heavy. Towards the sea 'tis level, and yields plenty of corn. In other parts you have woods and heaths. Those feed abundance of cattle,
Z and

and these infinite numbers of sheep and rabbits. Its principal rivers are the *Ouse*, *Waveney*, *Yare*, and *Thryn*: Its commodities, corn, wool, honey, and saffron, the best growing near *Walsingham*: its manufactures, stuffs and stockings. The neighbouring sea swarms with her- ing. Jet and amber are sometimes found upon the coast. From *Norwich* to *Yarmouth*, about 30 miles, is all rich meadow; upon which most of the *Scots* runts graze, till they are fat, and then make excellent Beef.

Market-Towns.

NORWICH is the capital, Wed. Frid. and Sat.		
Lynn <i>tu</i> and <i>f</i>	Downham <i>f</i>	Comer <i>f</i>
Yarmouth <i>f</i>	Walsingham <i>w</i>	Diss <i>f</i>
Thetford <i>f</i>	Windham <i>f</i>	Harleston <i>w</i>
Attleborough <i>th</i>	Ropeham <i>f</i>	Herling <i>tu</i>
Alesham <i>f</i>	Snatham <i>f</i>	Holt <i>f</i>
Buckingham <i>f</i>	Falkenham <i>th</i>	Wotton <i>w</i>
Burnham <i>f</i>	Foulsham <i>th</i>	Worsted <i>f</i>
Dearham <i>f</i>	Hingsham <i>f</i>	Seby <i>every Second</i>
Walsingham <i>f</i>	Causton <i>tu</i>	Monday.
Swatham <i>f</i>		

Northamptonshire.

An inland county, in *Peterborough* diocese, 120 miles in circuit, is one of the best counties in *England*, has a healthful air, a rich, fruitful soil, abundance of inhabitants, and claims the honour of having more noblemens seats than any other county. It abounds in corn and cattle, wood, and salt-petre. Its principal rivers are the *Ouse*, the *Welland*, and the *Nen*, all rising in this county.

Market-Towns.

NORTHAMPTON, the shire-town, Saturday.	
Peterborough <i>f</i>	Rothwell <i>m</i>
Brackley <i>w</i>	Kettering <i>f</i>
Daventry <i>w</i>	Wellinborough <i>w</i>
Oundle <i>f</i>	Trapstone <i>tu</i>
Towcester <i>f</i>	Cliff <i>tu</i>

Nor-

Northumberland.

A maritime county, in *Durham* diocese, and bordering upon *Scotland* is 160 miles in circumference, bounded by the sea *eastward*, and on the *west*, by the impassable mountains of *Stainmore*. It has a keen piercing air: is not the most fruitful, but some parts of it are very good, especially towards the sea. Here are several lead and coal mines: A multitude of monumental antiquities, with wild-fowl and fish in abundance.

Market-Towns.

NEWCASTLE, the chief town, Saturday.

Berwick <i>f</i>	Hexham <i>tu</i>
Alnwick <i>f</i>	Wooller <i>th</i>
Morpeth <i>w</i>	Belford <i>tu</i>
Rothbury	Warkworth <i>th</i>

Nottinghamshire.

An inland county in the diocese of *York*, 90 miles in circuit, has a wholsom air, and different sorts of soil; for the south east parts are fertile, the western woody, and yield abundance of pit-coal. Here is the famous forest of *Sherwood*. The *Trent* and the *Idle* are its prime rivers. The first parts this county from *Lincolnshire*.

Market-Towns.

NOTTINGHAM, the county-town *w, f* and *f*.

Newark <i>w</i>	Bingham <i>th</i>
Redford <i>w</i>	Worspop <i>w</i>
Mansfield <i>th</i>	Tuxford in the Clay, <i>m</i>
Southwell <i>f</i>	

Oxfordshire.

An inland county, in *Oxford* diocese, 130 miles round, has a sweet healthful air, a good soil for corn and fruit, and rich in pasture. Beside the *Thames*, compos-

ed of *Tame* and *Isis*, that water this county, here is the *Cherwel*, *Windrush*, *Evenlode*, &c. *Oxford* is remarkable for a famous university, containing 20 colleges, and 5 halls, which are as follow.

<i>University col.</i>	Founded in	872. by the Saxon King Alfred.
<i>Baliol</i>		1262. by John Baliol, King of Scotland.
<i>Merton</i>		1274. by Walter de Merton, Bp. of Rochester.
<i>Exeter</i>		1316. by Walter Stapleton Bp. of Exeter.
<i>Oriel</i>		1325. by King Edward II.
<i>Queen's</i>		1340. by Robert Eglesford, B. D.
<i>New</i>		1375. by William of Wickham, Bp. of Winchester.
<i>Lincoln</i>		1427. by Richard Flemming and Thomas Rotherham, Bps. of Lincoln
<i>All-Souls</i>		1437. by Henry Chichely, Arch Bp. of Canturbury.
<i>Magdalen</i>		1459. by William of Wainfleet, Bp. of Winchester.
<i>Brazin-Nose</i>		1511. by William Smith, Bp. of Lincoln, and Sir Richard Sutton, Knt.
<i>Corpus-Christi</i>		1516. by Richard Fox, Bp. of Winchester.
<i>Christ-Church</i>		1549. by King Henry VIII.
<i>Trinity</i>		1555. by Sir Thomas Pope.
<i>St. John's</i>		1557. by Sir Thomas White, Lord Mayor of London.
<i>Jesus</i>		1571. by Queen Elizabeth.
<i>Wadham</i>		1609. by Nicholas Wadham, Esq;
<i>Pembroke</i>		1620. by Thomas Tesdale, Esq; and Richard Whitwich, B. D.
<i>Worcester</i>		1700. by Sir Thomas Cooke.
<i>Hartford</i>		1740. by Dr. Newton.

HALLS.

St. Edmond's	} belonging to	Queen's	} College.
St. Albans		Merton	
St. Mary's		Oriel	
New-Inn		New	
Magdalen		Magdalen	

Market-Towns.

OXFORD, the capital city, Wed. and Sat.

Woodstock <i>tu</i>	Witney <i>th</i>	Bicester <i>f</i>
Banbury <i>tu</i>	Chipping Norton	Bampton <i>w</i>
Burford <i>f</i>	<i>f</i>	Tame <i>tu</i>
Henley <i>th</i>	Deddington <i>f</i>	Charlbury <i>f</i>
Watlington <i>f</i>		

Rutland.

An inland county in *Peterborough* diocese, 40 miles in circuit. It yields plenty of corn and cattle, and feeds great numbers of sheep; the wool whereof (like the soil) is reddish: from whence this county is called *Rutland*; that is, *Red-land*. Here is also plenty of wood, and several rivers; the principal of which are the *Wel-*
land and *Wash*.

Market-Towns.

Oakhampton *f* | Upingham *w*

Shropshire.

An inland county, in the diocese of *Hereford*, and *Lichfield*, bordering upon *Wales*, is 135 miles in compass. Here the inhabitants breathe a good air, and have the benefit of a fruitful soil, though hilly on the south and west. It yields plenty of wheat and barley, pit-coal, wood, and iron. The rivers are the *Roden*, *Teme*, and *Severn*; which last runs through the county.

Mar-

Market-Towns.

SHREWSBURY, the county-town, Wed. Th. Sat.

Bishopscastle <i>f</i>	Elismere <i>tu</i>	Wen <i>th</i>
Bridgnorth <i>f</i>	Whitchurch <i>f</i>	Church-stretton <i>tu</i>
Ludlow <i>m</i>	Newport <i>f</i>	Oswestry <i>m</i>
Wenlock <i>m</i>	Drayton <i>w</i>	Shipton <i>tu</i>

Somersetshire.

A maritime county in the west of *England*, and diocese of *Bath* and *Wells*, 240 miles round, is one of the largest counties; plentiful of corn and pasture, most pleasant in the summer, tho' but indifferent for Travelers in the winter. Whence the proverb, *Bad for the rider, but good for the abider*. Beside the *Severn*, which runs into the sea, there is the *Avon*, *Frome*, *Parret*, *Tor*, and *Tone*. The oxen in this county are as large as those in *Lincolnshire*, and the meat much preferable. This county yields also lead and copper, lapis calaminaris, chrystal that comes near a diamond, and wood for dyers. Its chief manufactures are woollen cloth, and ferges. At *Ghedder* they make the best and the biggest cheeses in *England*, as good as the *Parmesan*. The whole milk of the parish goes for the making of it, by agreement among the parishioners.

Market-Towns.

BRISTOL, the capital, Wednesday and Saturday.

Bath, <i>w</i> and <i>f</i>	Axbridge <i>th</i>	Canestham <i>th</i>
Wells, <i>w</i> and <i>f</i>	Sheptonmallet <i>f</i>	Crookhorn <i>f</i>
Bridgewater <i>th</i>	Somerton <i>m</i>	Dulverton <i>f</i>
Ilchester <i>w</i>	Wellington <i>tu</i>	Glastenbury <i>tu</i>
Taunton <i>w</i> and <i>f</i>	Bruton <i>f</i>	Chard <i>m</i>
Wincanton <i>w</i>	Ilminster <i>f</i>	Longport <i>f</i>
Watchet <i>f</i>	Dunstar <i>f</i>	Poutford <i>tu</i>
Southpetherton <i>th</i>	Wivelscomb, <i>tu</i>	Writon <i>tu</i>

Staffordshire.

An inland county in the dioceses of *Lichfield* and *Conventry*, 141 miles in circumference; the air is sharp and healthful,

healthful, the soil diverse: for northward 'tis hilly and barren, southward it yields plenty of corn and grass, iron, and pit-coal. The inland parts are level, but woody. Here is also good stone, marble, and alabaster.

Beside the *Trent*, that waters it northward, there is the *Dove*, *Churner*, *Blithe*, *Line*, *Sow*, and other small rivers, which make the neighbouring lands very fruitful, and the sheep that feed upon them some of the best mutton in *England*. Here are also some salt springs, little inferior to those in *Cheshire*.

Market-Towns.

STAFFORD, the county-town, Saturday.

Litchfield <i>tu</i> & <i>f</i>	Eccleshall <i>f</i>	Betley <i>tu</i>
Newcastle <i>m</i>	Ridgley <i>tu</i>	Locke <i>w</i>
Burton <i>th</i>	Browley <i>tu</i>	Tudbury <i>tu</i>
Penbridge <i>tu</i>	Breewood <i>tu</i>	Stow <i>tu</i>
Utuxetar <i>w</i>	Walshall <i>tu</i>	Wolverhampton <i>w</i>

Suffolk.

A maritime county, south of *Norfolk*, and in *Norwich* diocese, 140 miles in compass. The air is wholsom, but the soil diverse: sandy and full of heaths towards the sea; but yielding plenty of rye, pease, and hemp, and feeding vast multitudes of sheep. Further from the sea are the *Woodlands*, otherwise called *High Suffolk*, which feed abundance of cattle. But the most fruitful parts are about *St. Edmondsbury*. There are many parks in this county. Its principal rivers are the *Stour*, *Breton*, *Deben*, *Orwel*, and *Blith*. Here is abundance of cheese made tolerable good, but *Suffolk* butter is counted excellent. Its Manufactures are woolen and linen cloth.

Market-Towns.

IPSWICH, the principal, Wed. Frid. and Sat.

Dunwich <i>f</i>	Stowmarket <i>th</i>	Lavenham <i>tu</i>
Orford <i>m</i>	Newmarket <i>th</i>	Mildenhall <i>f</i>
Alborough <i>f</i>	Beccles <i>f</i>	Bideston <i>w</i>

Sud.

Sudbury <i>f</i>	Bury <i>w</i>	Clare <i>f</i>
Eye <i>f</i>	Hadley <i>m</i>	Bungay <i>th</i>
Deddingham <i>f</i>	Framlington <i>f</i>	Holfworth <i>tu</i>
Ixworth <i>f</i>	Lestoff <i>w</i>	Mendlesham <i>tu</i>
Needham <i>w</i>	Neyland <i>f</i>	Woodbridge <i>w</i>

Surry.

An inland county, which the *Thames* parts from *Middlesex* 112 miles in circuit, in the diocese of *Winchester*. 'Tis observed that the skirts of this county are the most fruitful; however in point of health, the middle parts have the advantage; both for the pleasure they yield by their *Downs* in hunting, and horse races. Besides the *Thames*, here is the *Wye*, which runs through *Guildford*, the *Mole* through *Darking*, and the *Wandle*, all three into the *Thames*, the first two near *Hampton-Court*, and the last near *Richmond*.

Market-Towns.

GUILD FORD, the county-town, Saturday.

Rigate <i>tu</i>	Kingston <i>f</i>
Southwark <i>w</i> and <i>f</i>	Croydon <i>f</i>
Darking <i>th</i>	Farnham <i>th</i>

Warwickshire.

An inland county in the dioceses of *Worcester* and *Lichfield* and *Coventry*, is 135 miles in circuit, enjoys a good air, and plentiful soil, especially on the south. North-ward 'tis woody. Among its rivers *Avon* is the chief, which runs through the midst of it; and falls at last into the *Severn*. Its chief commodity is cheese.

Market-Towns.

WARWICK, the county-town, Saturday.

Coventry <i>f</i>	Birmingham <i>th</i>	Nuneaton <i>f</i>
Stratford <i>th</i>	Colehill <i>w</i>	Rugley <i>f</i>
Atherstone <i>tu</i>	Henley <i>m</i>	Southam <i>m</i>
Alcester <i>tu</i>	Kyneton <i>tu</i>	Suttoncolefield <i>m</i>

West.

Westmoreland.

Westmoreland, in the north-west of *England*, partly in the diocese of *Chester*, and partly in that of *Carlisle*, is 120 miles in compass. 'Tis hilly and marshy, but not without fruitful spots of ground, especially south-ward. But in general 'tis certainly the most barren and wild county in *England*. The *Eden*, *Ken*, *Lon*, and *Eamon*, are the principal rivers. *Ulles* water, and *Winander-meer*, are two lakes, the first bordering upon *Cumberland*, and the latter upon *Lancashire*.

Market-Towns.

APPLEBY, the county-Town, Saturday.

Kendal *f*
 Longdale *th*
 Burton *tu*
 Ambleside *w*

Kirby Steven *m*
 Orton *f*
 Brough *w*

Wiltshire.

An inland county in *Salisbury* diocese, 140 miles round, is a healthful county. Northward 'tis somewhat hilly and woody; but southward 'tis pretty level. In the middle of it is *Salisbury* plain, noted for its large extent, and for feeding innumerable flocks of sheep. Its principal rivers are the *Isis*, *Kennet*, *Avon*, *Willy*, and *Nadder*. It has the chief manufacture of wool: the best broad cloths, both white and dyed, are made all over this county.

Market-Towns.

SALISBURY, the capital, Wednesday and Saturday.

Hindon *th*
 Chippingham *f*
 Wilton *w*
 Marlborough *f*

Crickdale *f*
 Devises *th*
 Downton *f*
 Wexbury *f*

Warminster *f*
 Bradford *m*
 Amsbury *f*
 Auburn *tu*

Wor-

Malmsbury <i>f</i>	Highworth <i>w</i>	Swindon <i>m</i>
Lavington <i>w</i>	Calne <i>tu</i>	Troubridge <i>f</i>
Wotton-basset <i>th</i>		

Worcestershire.

An inland county in the diocese of *Worcester*, 130 miles in compass; yields plenty of corn, pasture, cattle, fish and fruit. The vale of *Evesham* is noted especially for its great fertility. Here are also several salt springs, Its rivers, the *Severn*, *Avon*, *Salwarp*, *Stour*, &c.

Market-Towns.

WORCESTER, the capital, Wed. Frid. and Sat.		
Evesham <i>m</i>	Kidderminster <i>th</i>	Tidbury <i>tu</i>
Bewdley <i>f</i>	Bromsgrove <i>tu</i>	Upton <i>th</i>
Droitwich <i>f</i>	Parishore <i>tu</i>	Shipton <i>f</i>
Stowerbridge <i>f</i>		

Yorkshire.

A northern maritime county, in *York* diocese is 320 miles round. 'Tis divided into three parts, the *N*, *E*, and *W*. *Ridings*, which last is the largest and most populous. 'Tis generally a most fruitful country, yielding plenty of corn, cattle, fish, and wild-fowl. Here are also abundance of fine horses, lime-stone, jet, and allum. *Sureby* is noted for its goats, *Sheffield* for iron, *Richmondshire* for its lead, copper, and pit coal. Its principal rivers are the *Humber*, *Aire*, *Calder*, *Dun*, *Derwent*, *Nidd*, *Ouse*, *Swale*, *Yore*, *Warf*, and *Tees*. This county is about the size of the dukedom of *Wurtemberg* in *Germany*; and bigger than all the seven *United Provinces* of *Holland*. The manufactures here are cloths, which of late are carried on to great perfection.

Market-Towns.

YORK, the capital, Tuesd. and Sat.		
Kingston upon	Halifax <i>th</i>	Patricington <i>f</i>
Hull <i>f</i>	Leeds, <i>tu</i> and <i>f</i>	Hornsey <i>f</i>
Knaresborough <i>w</i>	Bradford <i>th</i>	Burlington <i>f</i>
Rippon <i>th</i>	Aberford <i>w</i>	Scarborough <i>th</i>
		Borough-

Boroughbridge <i>f</i>	Sherborn <i>f</i>	Malton <i>tu</i> and <i>f</i>
Pontefract <i>f</i>	Selby <i>m</i>	Thirske <i>m</i>
Sheffield <i>tu</i>	Tadcaster <i>th</i>	Northallerton <i>w</i>
Rotheram <i>m</i>	Wetherby <i>th</i>	Richmond <i>f</i>
Doncaster <i>f</i>	Shipton <i>f</i>	Whitby <i>f</i>
Tickhill <i>f</i>	Ripely <i>f</i>	Gisborough <i>m</i>
Baure <i>f</i>	Beverley <i>w</i> and <i>f</i>	Pickering <i>m</i>
Barnesley <i>w</i>	Hull <i>tu</i> and <i>f</i>	Yarum <i>th</i>
Wakefield <i>th</i>	Heydon <i>f</i>	Stocksley <i>f</i>
Huthersfield <i>tu</i>	Howdon <i>f</i>	Beddall <i>tu</i>
Snath <i>f</i>	Wighton <i>w</i>	Masham <i>tu</i>

II. *W A L E S.*

The principality of *Wales*, lies on the W. of *England*, (commonly reckoned a part thereof) bordering on the *Irish* ocean, and parted by the river *Dee*, and a line drawn to the river *Wie*; in length from N. to S. about 124 miles, in breadth from E. to W. about 100.

It was first conquered by the *Romans*, (about the same time that *England* was) and afterwards had a king of its own, and sometimes two, one of *North* and the other of *South-Wales*; till at last the kings of *England* subdued them, and brought them to their power; so that it is at present under the kings of *England*, whose eldest son has the title of prince of *Wales*.

The inhabitants, as in the rest of *England*, are most Protestants, their language very harsh, being the same with the old *British* or *Gallick*, but the *English* is also much used among them; their chief commodities are cattle, butter, cheese, Welsh-frizes, cottons, bays, herrings, hides, calves skins, honey, wax, and other such like. It is divided into two parts, which are;

I. *North-Wales*, the seat of the old *Ordovices*, since the K. of *Guinedth* and part of *Powisland*; it contains six counties, which are,

I *Flint*.

1 Flintshire	} Chief Towns	{ St. Asaph and Flint.
2 Denbighshire		{ Denbigh.
3 Isle of Anglesey		{ Beaumarish.
4 Caernarvonshire		{ Caernarvon and Bangor.
5 Merionethshire		{ Harlech.
6 Montgomeryshire		{ Montgomery and Welsh-Pool.

St. Asaph is chief of the whole.

2. *South Wales*, the seat of the old *Dimetæ*, and part of the *Silures*, since the K. of *Debenbarch*, and part of *Powisland*; it contains six counties, viz.

1 Cardiganshire	} Chief Towns	{ Cardigan.
2 Radnorshire		{ New Radnor.
3 Pembrookshire		{ Pembrook and St. Davids.
4 Carmarthenshire		{ Carmarthen
5 Brecknockshire		{ Brecknock.
6 Glamorganshire		{ Cardiff and Landaff.

Chief town of the whole is *Pembrook*.

Rivers of chief note are two, 1 *Wye*, and 2 *Dee*.

Principal mountains are those called, 1. *Snowdon hills*, and 2. *Plinlimmon*.

Archbishopricks 0, bishopricks 4, universities 0.

III. SCOTLAND.

The kingdom of *Scotland* is the rest of the isle of *Albion* or *Great-Britain*, and lies on the N. of *England*, from which it is parted by the rivers *Tweed* and *Solway*, and the *Cheviot hills*; in length from *Dungsby-head* to the S. parts of *Galloway*, 250 miles; in breadth from *Aberdeen* to the isle of *Mull*, 150 miles.

The inhabitants are most Protestants, and those chiefly Presbyterians; their language is in the S. parts a corrupt *English*, and on the N. and W. parts a dialect of the *Irish*; their chief commodities are most sorts of fish in great abundance, much linnen-cloth and tallow, vast numbers

South comprehends

North Clafs comprehends

numbers of cattle and hides; as also excellent honey, lead oar, iron, train-oil, coarse cloths, frizes, &c.

It is divided into two Classes, viz. { *South, the Firth* } { *Edinburgh*
 { *North, the Firth* } { *Aberdeen*

South comprehends	Galloway	Chief Town	Kirkudbright	W. to E.
	Nithsdale		Dumfries	
	Annandale		Annand	
	Eldale with Eufdale		Hermitage	E. to W.
	Lidisdale		Jedburgh	
	Tiviotdale		Duns	
	The Mers		Lauder	
	Lauderdale		Peebles	
	Tweedale		Glasgow	E. to W.
	Clydisdale		Ayr	
	Kyle		Burgenny	
	Carrick		Edinburgh	E. to W.
	Lothian		Idem	
	Stirling		Idem	
	Renfrew		Irvine	
	Cunningham		Rothefay	
North Glafs comprehends	<i>Isles of</i> { Bute		Kilzeran	E. to W.
	{ Arran			
	Peninsula of Cantyr			
	Fife	Chief Town	St. Andrews	E. to W.
	Menteith		Dumblain	
	Lennox		Dumbarton	
	Argyll		Inverary	E. to W.
	Perth		Idem	
	Strathern		Abernethy	
	Broadalbine		Dunstaffnage	E. to W.
	Lorn		Bervy	
	Merns		Dundee	
	Angus		Blair	E. to W.
	Gaury			
	Athol			

North Clafs comprehends	Mar ———	Chief Towns	Aberdeen —	E. to W.
	Badenoch ———		Ruthven —	
	Lochabar ———		Inverlochy —	
	Buchan ———		Peterhead —	E. to W.
	Bamfe ———		Idem ———	
	Murray ———		Elgin ———	
	Rofs ———		Tain ———	S. to N.
	Sutherland ———		Dornock —	
	Strathnaver ———		Strathy —	
	Caithness ———		Wick, lying N. E. of Strathnaver.	

These are the various divisions of *Scotland*, according to the best maps, and the manner how they are found. But since that kingdom is ordinarily divided into sheriffdoms, stewardries, baileries, and one constabulary, we shall also consider it in that respect; and seeing each of these sheriffdoms and stewardries, &c. comprehend either a part, or one, or more of the foresaid divisions, we shall here subjoin all the sheriffdoms, and stewardries, &c. of the whole kingdom, and annex to each of them their whole content, whether more or less. Therefore,

Sheriffdoms of Scotland are those of	Edinburgh —	Containing	Middle Lothian.
	Berwick —		Mers and bailiary of Lauder-
	Peebles —		Tweedale. [dale.
	Selkirk —		The Forrest of Ettrick.
	Wigtoun —		The N. and W. parts of Gal-
	Renfrew —		Barony of Renfrew. [loway.
	Lanerick —		Clydsdale.
	Dumbritton		Lennox.
	Bute		Isles of { Bute.
	Stirling —		Arran.
	Linlithgow —		Stirling, on both sides the river
	Clackmannan		West Lothian. [Forth.
	Kinross —		The E. parts of Stirlingshire.
	Coupar —		The W. parts of Fife.
	Forfar —		The rest of Fife.
	Kinkardine —		Angus, with its pertinents.
	Elgin —		Merns.
	Nairn —		The E. parts } of Murray.
	Wick —		The W. parts }
	Orkney		Caithness.
			Isles of { Orkney.
			Zetland.

Aberdeen containing { Marr, with its pertinents.
Buchan.
Strathbogie.

Perth cont. { Perth — — }
 { Athol — — }
 { Gawry — — }
 { Broad-Albine }
 { Menteith — }
 { Strathern — }
 As also { Glenshee.
 { Strathandel.
 { Ramach.
 { Balhider.
 { Glenurghay
 { Stormont.

Inverara cont. { Argyll.
 { Lorn.
 { Cantire.
 Isles W. of { Lorn.
 { Cantire.

Bamfe cont. { Bamfe
 { Strathdoveren.
 { Boyn.
 { Enzy.
 { Strathawin.
 { Balveny.

Inverness cont. { Badenoch.
 { Lochabar.
 { The South part of Ross.
 { Part of Murray beyond Nairn, W.

Tayne cont. { Sutherland.
 { Strathnaver.

Roxburgh cont. { Tiviotdale.
 { Lidisdale.
 { Elhdale, with Eufdale.

Ayre cont. { Kyle.
 { Carrick.
 { Cunningham.

Dumfries }
Cromarty } con. { All Nithsdale.
 { A little of Ross, S. of Cromarty.

Besides those Sheriffdoms, there are {
Stewardries.
Bailiaries.
One Constabulary.

Stewardries are {
 Strathern — }
 Menteith — }
 Annandale }
 Kirkudbright }
 As also {
 St. Andrews }
 Killemuire }
 Abernethy }

Contain. {
 Strathern.
 Menteith.
 Annandale.
 E. and S. parts of
 Galloway.
 in {
 Fife.
 Angus.
 Perth.

Bailiaries are {
 Kyle }
 Carrick }
 Cunningham }
 Lauderdale }

Contain. {
 Kyle.
 Carrick.
 Cunningham.
 Lauderdale.

The one constabulary is that of *Haddington*, containing *East Lothian*.

Principal rivers are two, viz. 1. *Tay*, and 2. *Spey*.

Mountains of greatest note are, 1. the *Cheviot hills*, and 2. those of *Albany*.

Chief lakes are, 1. *Lomond*, 2. *Nefs*, and 3. *Tay*.

Archbishopricks 2. Bishopricks 12. Universities 4.



IV. IRELAND.

The kingdom of *Ireland*, an island lying on the W. of *England* and *Wales*; in length from the N. parts of *Antrim*, to the S. parts of *Cork*, 285 miles; in breadth from the E. parts of *Down*, to the W. parts of *Maye*, 160 miles.

The

The inhabitants are both Protestants and Papists; their language, a dialect of the old *British*, intermixed with *Norwegian*, *Danish*, and *English*; the *English* is also frequently used among them, and in some places a mongrel speech between both; their chief commodities are cattle, tallow, butter, cheese, honey, wax, salt, hemp, linnen-cloth, pipe-staves, wool, frizes, &c. It is divided into four provinces, which are,

1. *Ulster*. 2. *Connaught*. 3. *Leinster*. 4. *Munster* or *Mounster*.

Rivers of note are, 1. *Shannon*, 2. *Barrow*, 3. *Shur*, and 4. *Blackwater*.

Chief mountains are, 1. *Knock Patrick*, 2. *Sliew Bloe-my*, and 3. *Curlew hills*.

Lakes of greatest note are, 1. *Lough-Earn*, 2. *Lough-Neagh*, and 3. *Lough-Corrib*.

Archbishopricks 4. Bishopricks 18. Universities 1.

Lesser British Isles, are,

1. The *Orcades*, or *Orkney Islands*, on the N. of *Scotland*. The number of them is indeed very great, 26 of them are inhabited, and the rest called *Holms*, are used only for pasturage. Most of them are blest with a very pure and healthful air to breathe in, but their soil is very different, being in some extremely dry and sandy, in others wet and marshy; however they are indifferently fruitful in oats and barley; the chief of them are, *Hoy*, *Mainland*, *Sapinsha*, and *Westra*; the chief town is *Kirkwall* in *Mainland*. These islands have been visited by the *Picts*, and subject to the *Danes*; but *Christian IV.* of *Denmark*, having quitted all his pretensions to them in favour of *James IV.* of *Scotland*, they have ever since acknowledged allegiance to the *Scots* crown.

2. *Shetland*. Under this name are comprehended 46 islands, with 40 *Holms*, besides many rocks. Of these islands, about 26 are inhabited, the rest being used for feeding cattle. The chief of them are *Mainland*, and *Yell*; the chief town is *Ylesburg* in *Mainland*.

3. The *Hebrides*. They surpass 300 in number, the most remarkable of which are *Jona* and *St. Kilda*.
4. *Man*, on the W. of *England*.
5. *Wight*, on the S. of *England*, &c.

VI. LOW-COUNTRIES.

THE *Low-Countries*, a knot of provinces, right against *England*, on the N. of *France*, and W. of *Germany*, situated between the 49th and 10 min. and the 53d and 37th of lat. and between the 21st and the 26th and 28th min. of lon. in form somewhat triangular; being in length from the N. parts of *Groningen*, to the S. parts of *Luxemburgh*, 264 miles; and in breadth from the W. parts of *Artois*, to the E. parts of *Luxemburgh*, 192 miles.

The inhabitants of the *Spanish* and *French* provinces are mostly Papists; in the *United Provinces* all religions are suffered, but most are Calvinists; their language is mostly *Flemish* or *Low-Dutch*, a dialect of the *German*; in *Hinnault*, *Artois*, bishoprick of *Liege*, *Namur*, *Luxemburgh* and *French Flanders*, they use the *Walloon*, or a corrupt *French*; *Spanish* and *English* is also very common in many places; their chief commodities (being the product of their manufactures) are tapestries, worsted stuffs, linnen-cloth, wrought silks, camblets and lace, &c. They are divided into 17 provinces, which are;

1 Barony of *Groningen*, 2 Barony of *West-Friesland* or *Urielandt*, 3 Barony of *Over-Yssel*, 4 Dukedom of *Gelderland* and *Zutphed*, 5 Barony of *Utrecht*, 6 Earldom of *Hollana*, 7 Earldom of *Zealand*. These go by the name of the *Seven United Provinces*, and often *Holland*, one of the most considerable commonwealths in the world.

8 Earldom of *Flanders*, 9 Earldom of *Artois*, 10 Earldom of *Hinnault* or *Henegow*, 11 Earldom of *Na-*
mur,

mur, 12 Dukedom of *Brabant*, 13 The marquifate of the Holy Empire, 14 The Signeury of *Mechlin* or *Mafines*, 15 Bifhoprick of *Liege* or *Luyckland*, 16 Dukedom of *Limburg*, 17 Dukedom of *Luxemburg*. Thefe ten provinces are called the *Spanifh* or *Catholick Provinces*, though at prefent not half under *Spain*. The inhabitants under *Spain* are called *Flemmings*, and thofe under *France*, *Walloon*s.

Rivers of principal note are three, viz. 1 *Rhine*, 2 *Meafe* or *Meufe*, and 3 *Scheld*.

Here are no mountains of note.

Lakes of greateft account are three, viz. 1 that of *Halem*, 2 *Tieuke*, and 3 *Schilt*.

Archbifhopricks 3, Bifhopricks 16, Universities 9.

VII. G E R M A N Y.

THE empire of *Germany* lies on the E. of the *Low-Countries* and *France*, on the N. of *Italy*, and on the W. of *Poland* and *Turkey*, bordering on the fea and *Denmark*, fituated between the 25th and 29th and 30 min. of lon. and between the 45th and 12 min. and the 54th and 50th min. of lat. almoft in form of a fquare, being in length from the N. parts of *Pomerania*, to the S. parts of *Trent*, 640 miles; and in breadth from the W. parts of *Triers*, to the E. parts of *Silefia*, 650 miles.

The inhabitants are both Roman Catholicks and Proteftants, the latter are moft numerous, divided into *Lutherans* and *Calvinifts*; their language is the *Highb Dutch*, the chief branch of the *Teutonick*, an ancient tongue, and very harfh: In *Bohemia*, they fpeak the *Slavonian*; the *Italian* in *Tirol* and part of *Switzerland*; the *French* in part of *Alfatia* and *Wallifland*; the *Cauchian* (among themfelves) in *Emden*; and the *Swedish* in fome of the N. parts; their chief commodities are corn, metals, alum, falt, wine, flefh, linnen, quick-filver,

silver, armour, and iron-work, &c. It is divided into ten circles, (besides others in these bounds) which are,

1 Circle of *Upper-Saxony*, 2 Circle of *lower Saxony*, 3 Circle of *Westphalia*, 4 Circle of the *Upper Rhine*, 5 Circle of *Lower Rhine*, 6 Circle of *Burgundy*, 7 Circle of *Suabia* or *Swaben*, 8 Circle and Dukedom of *Franconia*, 9 Circle of *Bavaria*, 10 Circle of *Austria*, 11 To these Circles may be added the kingdom of *Bohemia* or *Bohemerland*, 12 Also in the bounds of *Germany* lies *Switzerland*.

Rivers of chief note are five, viz. 1 *Rhine*, 2 *Danow*, 3 *Elbe*, 4 *Oder*, and 5 *Wefer*.

Principal mountains are, 1 *Fichtelberg*, incircling *Bohemia*, and 2 *Schwartzwald* in *Suabia*.

Lakes of greatest note are, 1 *Boden See*, 2 *Zirchnitz*, 3 *Ammer*, 4 *Chiem*, and 5 *Damne*.

Archbishopricks 7, Bishopricks 40, Universities 23.

VIII. DENMARK.

THE kingdom of *Denmark* lies on the N. of *Germany*, and (setting aside *Norway* and the isles) is a peninsula situated between the 27th and 5 min. and the 31st and 52 min. of lon. and between the 53d and 52d min. and the 58th deg. of lat. being in length from *Scagen* N. to *Hamburg* S. 250 miles; and in breadth from E. to W. (in N. *Jutland*) 100 miles, in some places (in *Sleswick*) but 30 miles.

The inhabitants are all of the reformed religion, and for the most part *Lutherans*; their language is a dialect of the *German*, but in *Norway* they speak it with more difference; the *German* is also much used in many cities; their commodities are fish, tallow, furniture for ships, armour, ox hides, buck-skins, fir-wood, wainscot, &c. Under this are comprehended six parts, the three first in the *Peninsula*.

I. *North*

1 *North Jutland*, 2 *South Jutland*, 3 *Dukedom of Holstein or Holface*. This is partly under its own duke, who is feuditory of the king of *Denmark*. 4 The isles in the *Baltick* sea, 5 *Kingdom of Norway or Nerrick*, 6 The isles in the *Frozen Ocean* are, 1 *Iceland*, 2 *Friesland*, 3 *Greenland*, 4 *Isles of Fero*, 16 in number.

Rivers of greatest note are four; viz. 1 *Trave*, 2 *Sloer*, 3 *Egder*, and 4 *Synder*.

Chief lakes are, 1 *Schlenter*, 2 *Western*, and 3 *Wistern*.

I find no mountains besides the *Dofrine* hills in *Norway*, and *Hecla* in *Iceland*.

Archbishopricks 1, Bishopricks 14, Universities 2.

IX. SWEDELAND.

THE Kingdom of *Swedeland* lies on the E. of *Norway*, W. of *Russia*, and N. of *Poland* and *Germany*. Situated between the 30th and 30 min. and the 60th and 50 min. of lon. and between the 55th and 50 min. and the 68th and 52 min. of lat. being in length from *Gottenburg* in *Gothland*, to the E. parts of *Finland* (cross the sea) about 900 miles; and in breadth from *Ustled* in *Sconen*, to the N. parts of *Lapland*, (in *Swedeland*) about 820 miles.

The inhabitants are all Protestants, and those chiefly *Lutherans*; except in *Livonia*, where they are both Protestants and Papiſts; their language is a corrupt dialect of the *German* or *Gothish*; but in *Lapland* and *Finland*, they use the old *Finnick*; and the *Eſtones* in *Livonia* have a peculiar tongue; their chief commodities are metal, ox hides, goats skins, sheeps skins, buckskins, and costly furs, pine trees, fir trees, oaks, tallow, tar, honey, and such like. It is divided into seven provinces, which are;

1 The coast of *Schonen* or *Scania*, 2 *Gothland*, 3 *Kingdom of Sweden*, 4 *Lapland* or *Lapmark*, 5 The Duke-

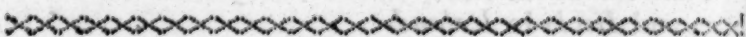
Dukedom of *Finland*, 6 Lordship of *Ingria*, 7 Dukedom of *Livonia* or *Liefland*.

Rivers of chiefest note are four, viz. 1 *Meler*, 2 *Dalacarlle*, 3 *Torne*, and 4 *Angermania*.

Mountains of greatest note are the *Dofrine* hills, parting *Sweden* from *Norway*.

Principal lakes are four, 1 *Ladoga*, 2 *Weemer*, 3 *Weter*, and 4 *Jende*.

Archbishopsricks 2, Bishopsricks 8, Universities 2.



X. RUSSIA.

THE empire of *Russia* is a vast country on the E. of *Swedeland* and *Poland*, and on the W. of *Tartary* in *Asia*, bordering on the Northern Ocean, situated between the 48th and the 102d degree of lon. and between the 45th and 71st degree of latitude, being in length from the S. parts of *Astrecan* to the mouth of the river *Oby*, about 1660 miles, and in breadth, from the borders of *Livonia* to *Oby*, at the same latitude, about 1530 miles.

The inhabitants are chiefly of the *Greek* church, but differing in many points, and some of the north parts are idolaters; their language is a dialect of the *Slavonian*, but much corrupted and mixed with others; their chief commodities are furs, fables, martins, wax, honey, tallow, train-oil, camviere, hemp, flax, flad, iron, &c. It is divided into 37 provinces, which are as followeth;

1 Republick of *Lapland*, 2 Province of *Karcapol*, 3 Province of *Dwina*, 4 Dukedom of *Condora*, 5 Dukedom of *Inhorski*, 6 Province of *Petzora*, 7 Republick of *Samoedes*, 8 Dukedom of *Obdoria*, 9 Kingdom of *Siberia*, 10 Dukedom of *Wiathka*, 11 Dukedom of *Permski*, 12 Province of *Ustingha*, 13 Dukedom of *Wologda*, 14 Dukedom of *Belezore*, 15 Dukedom of *Novogrod Weleki*, 16 Principality of *Pleskow* or *Pleow*, 17 Dukedom of *Reschew*, 18 Principality of *Bielski*, 19 Duke-

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Dukedom of *Smolensko*, 20 Dukedom of *Moscow* or *Moscovie*, 21 Dukedom of *Twer*, 22 Dukedom of *Rosthow*, 23 Dukedom of *Jeroslaw*, 24 Dukedom of *Susdal*, 25 Dukedom of *Wolodimer*, 26 Dukedom of *Nosi Novogrod*, 27 Republick of *Czeremissi Lognoisenne*, 28 Kingdom of *Gazan*, 29 Kingdom of *Wulgar*, 30 Kingdom of *Astracan*, 31 Province of *Pole*. 32 The *Tartars* of *Mordwitz*, 33 Province of *Okrania*, 34 Dukedom of *Rezan*, 35 Dukedom of *Worotin*, 36 Dukedom of *Novogrod Newarski*, 37 Dukedom of *Czernihow*.

Rivers of principal note are four, 1 *Wolga*, 2 *Divina*, 3 *Tanais* or *Don*, and 4 part of *Oby*.

Mountains of greatest note are those called the *Hyperborean* and *Riphean* mountains.

Lakes of chiefest note are, 1 *Belejozero*, and 2 *Ilmen*, with part of *Ladoga* and *Onega*.

Here is one patriarch, viz. *Moscow*; 7 Archbishopricks, 18 Bishopricks, and no universities.

XI. POLAND.

THE kingdom of *Poland* lies on the W. of *Russia*, E. of *Germany*, and N. of *Turkey in Europe*; situated between the 35th and 40th min. and 58 and 28 min. of lon. and between the 57th and 25th min. and the 47 and 30 min. of lat. being in length, from the borders of *Brandenburg*, to the E. parts of *Ukraine* about 880 miles; and in breadth, from the N. parts of *Courland*, to the S. parts of *Russia Rubra*, about 580 miles.

The inhabitants tolerate all religions, but the *Roman Catholick* is most predominant; next, that of the *Greek* church. Their language is a dialect of the *Sclavonian* or *Sarmatian*, yet differs much from it; their chief commodities are wax, linnen, boards, masts for ships, pitch, rich furs, salt, amber, pot ashes, corn, soap, butter, cheese, rosin, flax, cordage, brimstone, &c. It is divided into 12 provinces, which are,

1 Duke-

1 Dukedom of *Curland* or *Kureland*, 2 Dukedom of *Samogitia* or *Samodzka-Zembla*, 3 Dukedom of *Lithuania*, 4 Dukedom of *Prussia* or *Berussia*, 5 Province of Greater or Lower *Poland*, 6 Province of Lesser or Upper *Poland*, 7 Dukedom of *Massovia* or *Mazowski*, 8 Province of *Polesia*, 9 *Russia Rubra*, or *Nigra*, 10 *Volhinia*, 11 *Ukraine*, 12 *Podolia*.

Rivers of principal note are four, 1 *Nieper*, 2 *Wieszel*, 3 *Niester*, and 4 *Divina* the less.

Chief mountains are the *Carpathean*, or *Crapack* mountains, dividing *Poland* from *Turkey in Europe*.

Chief lakes are, 1 *Beybus*, 2 *Briate*, and 3 *Golds*.

Archbishopricks 2, Bishopricks 14, Universities 4.

XII. TURKEY IN EUROPE.

UNDER this name I comprehend (for methods sake) all those provinces which ly between *Poland*, *Germany*, the *Euxine*, *Archipelago* and gulf of *Venice*, situated between the 36 and 56 deg. of lon. and between the 34 and 30 min. and the 49 and 20 min. of lat. Somewhat of a triangular form, being in length, from the N. parts of *Hungary*, to *Cape Matapan* in *Morea*, about 1000 miles; and in breadth from the W. parts of *Criotia*, to *Oczacow* in *Bessarabia*, about 840 miles.

The inhabitants of these parts, are both Christians and Mahometans; the former divided into Papists, Protestants, and the Greek Church; their language is chiefly the *Sclavonian* and the *Turkish*. The chief commodities are metals, sulphur, vitriol, wines, oil, velvets, damasks, Turkey programs, &c. It contains 18 provinces (besides the Isles) the 12 first make the *Upper* and the 6 last the *Lower Turkey*.

Those parts that belong absolutely to the *Turks*, are divided into four governments or beglerbegships, viz. 1 *Romelia*, 2 *Bosnia*, 3 *Buda*, 4 *Tameswaer*. The 18 provinces are,

1 King-

1 Kingdom of *Hungary* or *Ongaria*, 2 *Sclavonia*, or *Wendiskland*, 3 Dukedom of *Groatia* or *Krabaten*, 4 Kingdom of *Bosnia* or *Bossen*, 5 *Dalmatia*, 6 Kingdom of *Servia* or *Zirfia*, 7 Principality of *Walachia*, 8 Principality of *Transilvania*, 9 Principality of *Moldavia* or *Moldove*, 10 *Bessarabia* or *Budziack*, 11 *Bulgaria* or *Wolgaria*, 12 *Romania Rumelio* or *Icella*, 13 *Macedonia*, 14 Kingdom of *Albania*, 15 *Canina* or the *Lower Albany*, 16 *Janna* or *Joanna*, 17 *Livadia*, 18 *Morea*.

To these are added the islands, the principal are 1 *Candia*, 2 *Negrepont*, 3 *Stalamine*, 4 *Nicfia*, 5 *Sciro*, 6 *Andro*, &c. all under the *Turks*. The *Venetians* have, 1 *Cefalonia*, 2 *Corfu*, 3 *Zant*, 4 *Cerigo*, &c.

Under the name of *Turkey in Europe*, I also comprehend *Crim Tartary*, now under its own prince, but tributary to the *Turks*. It is a sea province on the S. of *Russia*, 600 miles long, and 300 broad, divided into two parts, viz. 1 *Precop* or *Prezecop*, 2 *Taurica Chersoneus* or the *Peninsula*.

Rivers of chiefest note are 5, viz. 1 *Danow*, 2 *Neister*, 3 *Drave*, 4 *Save*, and 5 *Tyssa*.

Principal lakes are two, viz. 1 *Balaton*, and 2 *Newfidler Sea*, both in *Hungary*.

Chief mountains are, 1 *Balkan*, 2 *Holy Mount*, 3 *Lacha*.

Here is one patriarch; and I find the names of 38 archbishopricks, 57 bishopricks, but no universities.

Thus much for EUROPE.



II. A S I A.

A S I A, has on the E. and S. the *Oriental Ocean*, on the N. (as is supposed) the *Frozen Ocean*, on the W. *Europe* and the *Mediterranean Sea*, and on the S.

B b

W.

W. *Africa*, from which it is separated by the *Red Sea*, and an isthmus 110 miles long; it is situated between the 55th and the 182 deg. of lon. [Note, that the longitude in *Asia*, *Africa*, and *America*, is taken from *Ferro*, 2 deg. W. of *Teneriff*, the place of longitude in *Europe*.] and between the 1 and 72d deg. of lat. being in length from the *Dardanel*s in *Natolia*, to the E. parts of *China*, about 5300 miles. and in breadth from the S. parts of *India*, to the N. parts of *Tartary*, 4200 miles.

The religions may be reduced to four principal heads, viz. 1 Mahometan, 2 Pagan, 3 Christian, and 4 Jewish religion; the languages are chiefly four, viz. 1 *Persian*, 2 *Turkish*, 3 *Arabick*, and 4 *Chinean*.

It is chiefly under the government of four great monarchs, viz. The grand Signior, 2 The Sophy of *Persia*, 3 The great Cham of *Tartary*, and 4 The great *Mogul*, besides several other great princes.

Mountains of greatest note are, 1 *Taurus*, and 2 *Imaus*.

Rivers of principal note are six, viz. 1 *Euphrate*, 2 *Indus*, 3 *Gangus*, 4 *Oby*, 5 *Kiang*, and 6 *Crœceus*.

Greatest lakes (besides the *Caspian Sea*) are, 1 *Kithany*, in *Tartary*, and 2 *Chiamay* in *India*.

It is divided into ten great parts, viz. 1 *Turkey in Asia*, 2 *Georgia*, 3 *Arabia*, 4 *Persia*, 5 *Tartary* the Greater; *India*, containing three parts, viz. 6 Empire of *Mogul*, 7 The *Peninsula* on this side *Ganges*, 8 That on the other side, 9 *China*, and 10 *Oriental* islands.

I. TURKEY IN ASIA.

T*urkey in Asia* contains all the W. parts of *Asia*, being on the W. of *Persia*, between *Georgia* and *Arabia*, situated (not taking any part of *Arabia* or *Georgia*) between the 55th and 15 min, and the 83d and 55 min. of lon. and between the 29th and 40 min. and the 45 deg. of lat. being in length from the *Dardanel*s to the E. parts of *Yerack*, about 1530 miles, and in breadth from *Trebezond* in *Natolia*, to the S. parts of the *Holyland*, about 780 Miles.

The

The *Turks* use the Mahometan religion, which is composed of Christian, Jewish and Pagan religions, together with some new fopperies of their own added; the *Turkish* and *Sclavonian* are their chief languages.

It is governed by nineteen Beglerbegs under the Grand Signior, and divided into four parts besides the isles, viz. 1. *Natolia*, 2 *Syria*, 3 *Turcumania*, and 4 *Dierbeck*.

1. *Natolia*.

Natolia is the most W. province, washed on 3 sides with sea, being about 750 miles long from E. to W. and about 520 broad from N. to S.

The inhabitants are both Mahometans and Christians of the Greek church; their language both *Turkish* and *Sclavonian*, and also a corrupt *Greek*; the chief commodities are raw silks, goats hair, twisted cotton, cordovans of several colours, calicuts white and blue, wool for mattresses, tapstries, twisted coverlids, soap, rhubarb, galls, valleneed, scammony, opium, &c. It contains four provinces, which are,

1 *Natolia*, 2 *Caramania*, 3 *Amasia*, and 4 *Aladuli*.

Rivers of principal note are four, viz 1 *Ajala*, 2 *Madre*, 3 *Casalmach*, and 4 *Geusui*.

Mountains of greatest note are, 1 those called *du te Taurus*, and 2 *Troade*.

2. *Syria*.

Syria lies along the *Mediterranean* sea, towards the S. W. of *Natolia*, being about 500 miles long from N. to S. and about 300 broad from E. to W.

The inhabitants are both Mahometans and Christians; the latter divided into Maronites, Jacobites, and Melchites. Their language is the Arabick, and in some places the Syriack, composed of Chaldean and Hebrew. Their chief commodities are silks, camblets, valaneed, gallnuts, cotton, molhairs, soap, galls, jewels, spices, and drugs of all sorts, &c. It contains, 3 provinces, which are,

1 Syria or Serie, 2 Fenicia or Phenicie, and 3 Holy land, *anciently Palestine.*

Rivers of greatest note are three, *viz.* 1 Dracone, 2 Marfya, and 3 Jordan, *now Schihrah.*

Chief mountains are, 1 *Libano*, and 2 *Lyfon.*

3. *Turcomania.*

Turcomania lies between *Persia* and *Natolia*, E. to W. and towards the N. of *Syria*, in length from E. to W. 520 miles, and in breadth from N. to S. 280.

The inhabitants are Mahometans and Christians of the Greek church, and sect of *Eutiches.* Their language is in some places Turkish, in others Armenian; their commodities are pitch, fruits, silks, and such like. It contains two provinces, which are,

1 *Turcomania*, 2 *Curdes.*

Rivers of note are three, *viz.* 1 Euphrate, 2 Tigre, 3 *part of Kurr.*

Mountains are several branches of *Taurus.*

4. *Dierbeck.*

Dierbeck lies on the S. of *Turcomania*, E. of *Syria*, and W. of *Persia*, in length from N. W. to S. E. about 800 miles, and in breadth about 400.

The inhabitants are both Mahometans and Christians; their language is in some places Arabick, and in others Syriack; their chief commodities are corn, wine, oyl, fruits, cotton, wool, &c. It is divided into three provinces, which are,

1 *Dierbeck*, 2 *Arzerum*, and 3 *Yerack*, *Curdestan*, or *Keldan.*

Chief rivers are two, *viz.* 1 Euphrate, and 2 Tigre.

The lesser islands are chiefly these,

1 Kingdom of *Cyprus* or *Kibros*, in the Mediterranean sea, S. of *Natolia*, 170 miles long and 80 broad, divided into seven Sangiacks.

2 Those of lesser note are, 1 *Rhodes*, 2 *Cos*, 3 *Samos*, 4 *Nicaria*, 5 *Sio*, 6 *Metellino*, &c.

II. GEORGIA.

Under the name of *Georgia* is comprehended all that tract of land which lies between the *Palus Meotis*, or the sea of *Zabache*, and the *Caspian* sea, or the sea of *Buchu*; and between the river *Don* or *Russia*, and *Turcomania*, situated between the 65th and the 82d deg. of lon. and between the 41st and 40 min. and the 50th and 25 min. of lon. according to *Sanfon*, being in length from the straits of *Kassu*, to the *Caspian* sea, about 650 miles; and in breadth from the River *Don*, or *Tanais*, to the borders of *Curdes* in *Turcomania*, about 520 Miles.

The inhabitants are chiefly Christians of the Greek church, with some Mahometans; the former in practice, little differ from Pagans. Their language is in many places a kind of Slavonian, in some places the Turkish and Tartarian, and in *Mengralia* they have one peculiar. Their chief commodities are honey, wax, leather, furs, silk, linnen thread, martins, beavers, slaves, &c. It contains four provinces, which are,

1. *Comania*, or *Circassia*, 2. *Mengralia*, 3. *Gurgestan*, 4. *Zuiria*.

Rivers of principal note are three; viz. 1. *Kurr*, 2. *Faze*, and 3. *Terka*.

Chief mountains are several branches of *Taurus*.

III. ARABIA.

A*Rabia* is a very large country, being on the S. of *Turkey* in *Asia*, incompassed on three sides with sea, situated between the 64th, and the 96th and 40 min. of lon. and between the 12th and the 34th and 30

min. of lat. being in length from *Sues* in *Egypt* to the most E. parts of *Oman*, about 1700 miles, and in breadth from the mouth of the Persian gulf, to the mouth of the Red sea, about 1200 miles.

The inhabitants are all Mahomitans, except some few Christians in *Arabia Petrea*. Their language is wholly Arabick, a very famous tongue, partly derived from the Hebrew; naturally spoken in many other countries. The chief commodities of these countries, especially *Arabia Felix*, are coral, pearl, onyx-stones, balm, myrrh, incense, gums, cassia, manna, and several other drugs and spices. It contains 3 great parts, which are,

1. *Beriana*, 2. *Barraab*, 3. *Ayaman*.

Rivers of principal note are four; viz. *Prim*, 2. *Chibar*, 3. *Astan*, and 4. *Nageran*.

Chief mountains, (besides those mentioned in the Scriptures) are, *Scioban* and *Ghazuan*.

IV. PERSIA.

THE empire of *Persia* is a very large and famous country, lying between *India* and *Turkey*, E. and W. and between *Tartary* and the ocean, N. and S. situated between the 80th and 10 min. and the 111th and 25 min. of lon. and between the 24th and 35 min. and the 43d and 20 min. of lat. being in length from the N. W. parts of *Serran* to the borders of *India* in *Makran*, about 1620 miles, and in breadth from the river *Gehun* or *Oxus* to the Southern Ocean in *Kirman*, about 1100 miles; it contains the greatest part of the ancient *Persia*, with some of *Assyria*.

The inhabitants are *Mahomitants*, but differing in some points from the *Turks*; here are also Jesuits and Nestorians, with several Jews; their language is the *Persian*, very ancient, but have some mixture of *Arabick*, *Greek*, and *Tartarian* words, very soft and sweet; spoken in the eastern countries, as the *Latin* is in the western; it has 29 letters in the alphabet; the *Turkish* language

guage is also very much used here; the chief commodities are curious silks, carpets, tissues, manufactures of gold, silk, and silver, seal-skins, goat-skins, alabaster, and all sorts of metals, myrrh, fruits, &c. It is divided into 15 provinces according to *Sanfon's*, and *De Witt's* Maps of this country; which are,

1. *Servan* or *Schirwan*, 2. *Giland* or *Herach*, 3. *Dilemon*, 4. *Taberistan* or *Tocherestan*, 5. *Gorgian*, 6. *Khoemus*, 7. *Corassan*, 8. *Sablestan* or *Calchestan*, 9. *Airach* or *Yerach Agemi*, 10. *Ghurdistan* or *Adirbietzan*, 11. *Ghusistan* or *Elveran*, 12. *Fars*, 13. *Kirman* or *Cherman*, 14. *Sigistan* or *Sitzistan*, 15. *Makran*.

Rivers of principal note are four, viz. 1. *Cehun* or *Allius*, (ant. *Oxus*) 2. *Ilment*, 3. *Tiritiri*, and 4. *Bendimir*.

Chief mountains are *Taurus*, which pass through the length of this country, and go by several names.

V. TARTARY.

Tartary is the greatest country in the world, lying on the E. of *Russia* in *Europe*, and N. of *Persia*, *India*, and *China*, situated between the 85th and 182d deg. of lon. and between the 39th and 72d deg. of lat. being in length from the borders of *Asiracan* to the E. parts of *Cathay*, about 4000 miles; and in breadth from the S. parts of *Mawrinatra* to the most N. parts of *Tartaria Deserta*, about 2000 miles.

The inhabitants are both Mahomitans and Pagans; in some places all Mahomitans, in others all Pagans, which seem to be in most esteem. Here are also some Christians of the Nestorian sect; their language is the *Tartarian*, very boisterous and clamorous, almost the same with the *Turkish*, having some mixture of *Persian* and *Scythian* words; in some places they use the *Persian* tongue. The chief commodities are sable, martins, silks, camlets, flax, musk, cinnamon, and vast quantities

of rhubarb, &c. It is divided into five great parts, which are,

1 *Tartaria Deferta*, 2 *Mawrinalra*, *Wheck* or *Zagathay*, 3 *Turchestan*, 4 *Mongul* or *Magog*, 5 *Cathay* or *Kin-Tartary*.

Mountains of greatest note are those called *Imaus*, *Altai*, dividing *Tartary* in the middle.

Rivers of principal note are four, viz. 1 *Oby*, 2 *Ochanda*, 3 *Chefel*, and 4 *Polifanga*.

Principal lakes are four, viz. 1 *Kithay*, 2 *Kithaiska*, 3 *Coras*, and 4 *Amu*.

Archbishopricks, bishopricks, universities, in this country, none.



VI. MOGUL's EMPIRE.

THE *Mogul's* empire, or the empire of the *Great Mogul*, lies on the S. of *Tartary*, and E. of *Persia*, situated between the 106th and the 143d deg. of lon. and between the 19th and 50 min. and the 41st and 50 min. of lat. according to *Sanson's* maps, being in length from the W. parts of *Candahor* to the E. parts of *Kanduanah*, about 1750 miles; and in breadth from the N. parts of *Cabul*, to the S. parts of *Guzarat*, about 1240 miles.

The inhabitants are many of them Mahomitans of the Turkish sect, above two thirds are Gentiles, Banians, or Persees; and here are also some Christians of St. *Thomas*, and several Jews and Jesuits. Their language is a kind of Tartarian, and has a great mixture of the Persian. In *Guzarate* and *Bengala*, they speak the *Guzarate* tongue; the Persian is also much in use. The chief commodities are all sorts of spices, aloes, musk, rhubarb, wormseeds, civits, indigo, lacque, borax, opium, amber, myraboles, sal-armoniack, silk, cottons, callicoes, sattins, taffaties, velvits, carpets, metals, porcelline earth, &c. It is divided into 38 Kingdoms, which are,

1 *Can-*

1 Candahor, 2 Cabul, 3 Attock, 4 Kachemere, or Cassimere, 5 Bankisk, or Bakisk, 6 Naugracut, 7 Siba, 8 Kakares, 9 Pitan, 10 Gor, 11 Kanduanan, 12 Udeffa, 13 Mevat, 14 Jesual, 15 Patna, 16 Jamba, 17 Bakar, 18 Sambal, or Do-ab, 19 Narvar, 20 Gualeor, 21 Agrā, 22 Delly, 23 Jenupar, 24 Pengab, or Lahor, 25 Multan, 26 Hajacan, 27 Bukar, 28 Hendown, 29 Bando, or Asmire, 30 Jeselmere, 31 Tatta, 32 Soret, 33 Guzarate, 34 Chitor, 35 Malvay, 36 Candis, 37 Berar, 38 Bengala.

Rivers of principal note are two; viz. 1 *Indus*, or *Pengab*, and 2 *Ganges*, both very famous.

Chief mountains are 1 *Imuans*, or *Bittigo*, and 2 *Sardonix*.

VII. INDIA intra GANGEM.

India intra Gangem, or the peninsula on the side of the river *Ganges*, lies on the S. of the *Mogul's* empire, washed on three sides with sea: situated between the 114th and 45 min. and the 127th deg. of lon. and between the 7th and 40 min. and the 22d and 25 min. of lat. according to *Sanfon's* map of this country, being in length from the N. parts of *Orixa* in *Golconda*, to the Cape *Comeri* in *Malabar*, about 1000 miles; and in breadth from Cape *de Guadevari* in *Golconda*, to the W. parts of *Decan*, about 480 miles.

The inhabitants are of several nations besides the natives; they are both Pagans and Mahomitans, and some Christians of St. *Thomas*, besides the Europeans. Their language is that called *Talenga* in *Golconda*; the *Guzarate* in *Bisnagar*, and the *Malabar*, *Bagadan*, *Tamul*, and *Grandonique* in *Malabar*; the Portuguese is also much in use in some parts. The chief commodities are metals, silks, cottons, pearls, drugs, dates, cocoas, rice, ginger, cinnamon, pepper, cassia, &c. It is divided into four parts, which are,

1 King-

1 Kingdom of *Colconda*, 2 Kingdom of *Decau*, 3 Kingdom of *Bisnagar*, 4 *Malabar*.

Rivers of chief note are, 1 *Guengua*, and 2 *Mandova*. Chief mountains are those called *Balagatta*.

VIII. INDIA extra GANGET.

India beyond the river *Ganges*, is a knot of kingdoms, lying between the *Mogul's* empire and *China*, situated between the 135th and the 153d deg. of lon. and between the first and 34th deg. of lat. being in length from the S. parts of *Malacca*, to the borders of *Tartary*, about 2000 miles; and in breadth from *Ben-gala* to the borders of *Quantung* in *China*, about 900 miles;

The inhabitants are chiefly Idolaters; here are also some Mahomitans on the coasts, and some Christians converted by the Jesuits; their language in *Siam* and *Matacca*, is the *Malaize*, in some places the *Chinean*, in other places they have different tongues little known to us. The chief commodities are gold, silver, precious stones, silks, porcelaine earth, aloes, musk, rhubarb, alabaster, &c. It is divided into 4 great parts, which are,

1 Kingdom of *Pegu*, 2 Kingdom of *Tunquin*, 3 Kingdom of *Cochinchina*, 4 Kingdom of *Siam*.

Rivers of principal note are four, viz. 1 *Menin*, 2 *Ava*, 3 *Cosmite*, and 4 *Caor*.

Here is the famous lake of *Chiamny*.

Principal mountains that I find here are those called *Kemois*, and *Rumoy*.

IX. CHINA.

China lies on the E. of the *Indies*, and on S. of *Tartary*, situated between the 143d and the 167th deg. of

of lon. and between the 20th and the 41st and 40 min. of lat. being in length from the N. E. parts of *Leatony*, to the S. W. parts of *Junnan*, about 1560 miles, and in breadth from the N.W. parts of *Xensi*, to the S. E. parts of *Chekiany*, about 1300 miles.

The inhabitants are for the most part Idolaters ; here are some few Christians, converted by the Jesuits, but hardly suffered ; their language differs from all others, having but 300 words, and 50000 letters ; their chief commodities are gold, silver, precious stones, quicksilver, porcelaine dishes, silks, cottons, rhubarb, sugar, camphire, musk, ginger, China-wood, &c. It is divided into 15 provinces, which are,

1 Pecheli or Peking, 2 Xantung or Sciantum, 3 Honans, 4 Xansi or Schiansi, 5 Xensi, 6 Suchven or Sici-ven, 7 Huquang or Chuquam, 8 Nanking or Nanchin, 9 Chekiang, 10 Kiangsi, 11 Fokien or Fichen, 12 Quantung, 13 Quangsi, 14 Queichen, 15 Junnan.

Besides these provinces, here is the territory of *Leatong*, and the peninsula of *Corea*.

Rivers of principal note are three, viz. 1 Kiang, 2 Crocens, and 3, Ta.

X. Oriental Islands.

THE Oriental islands are a vast number of isles of all sorts, some say 150000 in number) lying on the E. and S. E. parts of *Asia*; the inhabitants are for the most part Gentiles ; their language in *Japan* is one of its own ; in *Sumatra*, *Java*, and the *Moluccoes*, they speak the Malaize. Here are several other tongues little known to us ; they are under a great many of their own kings and princes ; as also the *Dutch*, *Portuguese*, *Spaniards* and *French*, have considerable shares in these parts. They are,

1 Kingdom of *Japau*, on the E. of *China*, distant from it 210 miles, being about 710 miles long, and 200 broad, divided into five provinces, viz. 1 Jamaysoit, 2 Jet-

Jetzengo, 3 Jetzengen, 4 Quanta, 5 Ocliva. It is governed by its own king, who is a very great and potent prince. Here are also many other lesser isles which belong to Japan, as 1 *Ximo*, 2 *Xicum*, and some others.

2 *Phillippine* islands, the chief of which are, 1 *Luccania*, 480 miles long, and 180 broad, 2 *Mindanao*, 420 miles long, and 150 broad. Others are, 3, *Paragea*, 4 *Mindora*, 5 *Tandaya*, 6 *Ivan*, &c. These chiefly belong to the *Spaniards*.

3 *Molucca* islands, the chief of which are, 1 *Celebes*, 580 miles long, and 260 broad, 2 *Gilolo*, 3 *Ceram*, 4 *Tincor*, 5 *Flores*, 6 isles of *Banda*, 7 *Proper Moluccas*, 8 *Amboyne*, &c. These are all under their own kings and the *Dutch*.

4 *Borneo*, a large island, on the W. of the *Celebes*, of a round form, about 650 miles long, and 600 broad.

5 *Java*, on the S. W. of *Borneo*, 600 miles long, and 120 broad.

6 *Sumatra*, on the N. W. of *Java*, under the Equator, as is *Borneo*; 900 miles long, and 200 broad.

7 *Ceylon*, on the borders of *India* int. *Gangem*, of a roundish form, 250 miles long, and 170 broad.

8 The *Maldives*, a vast number of very small islands, on the S. W. of *Ceylon*, chief of which is *Male*.

Thus much for ASIA.



III. AFRICA.

AFRICA, has on the N. the *Mediterranean* sea; on the W. the *Atlantick* or W. ocean; on the S. the *Aethiopian* or S. ocean; on the E. the *Oriental* ocean; and on the N. E. the *Red Sea*, which with an isthmus of 110 miles parts it from *Asia*. It is a peninsula, and the greatest in the world; situated between the 3d and the

the 83d and 30 min. of lon. and between the 35th and 30 min of N. and the 35th and 10 min. of S. lat. being in length from *Cape Verde* in *Negroeland*, to *Cape Guadafu* in *Ajan*, about 4800 miles; and in breadth from *Cape de Boin* in *Barbary*, to the *Cape of Good Hope*, about 4200 miles.

It is larger than *Europe*, and less than *Asia*, but in general not so considerable as either, being in many places full of vast deserts, and uninhabitable places, some of which parts are so little known to us, that we can give but little account of them. Here are many and great variety of remarkable beasts and birds, not so common in other parts of the world.

The religions may be reduced to five general heads, viz. Mahometans, 2 Pagans or Gentiles, 3 Jews, 4 Christians, and 5 Libertines; the first two are most predominant; the languages are chiefly six, viz. 1 Arabick, 2 Habassine, 3 Egyptian, 4 Aquelamerig or the old Punic, 5 That called Sungai, and 6. That called Gubio; with some others of less note; the Jews speak the Chaldean or Syriack.

It is under the government of three emperors, viz. Abissina, Morocco, and Monomotapa; many kings, as Nubia, Congo, Tombute, &c. the Turks, who have a very considerable part; and several of the Europeans, as Spanish, Portuguese, English, Dutch, French, and Danes, who have several places upon the coasts.

Rivers of principal note are four, viz. 1 Nile, 2 Niger, 3 Zaire, and 4. Sambre.

Chief mountains are six, viz. 1 Atlas, 2 Chrystal Mount, 3 Amara, 4 Sierra Leona, 5 Mount Table, and 6. Tenneriff.

Lakes of greatest account are five, viz. 1 Zaire, 2 Zafflau, 3 Niger, 4 Borno, and 5. Guarda.

Africa is best divided into 12 parts, viz. 1 Egypt, 2 Barbary, 3 Biledulgerid, 4 Sarra, 5 Nubia, 6 Negroeland, 7 Guinea, 8 Congo, 9 Abissina, 10 Zanguebar, 11 Monomotapa, and 12 Cafferia; besides the isles.

I. EGYPT.

Egypt is the most N. E. part of *Africa*, bordering on *Asia*, and lying between *Barbary*, *Biledulgerid*, and the *Red Sea*; situated between the 59th and 20 min. and the 67th and 30 min. of lon. and between the 21st and 30 min. and the 31st and 30 min. of lat. being in length from *Alexandria* to *Bruge*, about 700 miles, and in breadth from *Zibith* to the borders of *Biledulgerid*, about 300 miles.

The inhabitants are Copti, Moors, Arabians, Turks, Jews, and Greeks, for the most part strict Mahometans: here are also many Christians, called Copti, Jacobites in sect. Their language is the Arabick or Morisk, and Turkish; and in some places the old Egyptian or Coptick, tho' now mixed with Greek, Latin, and Arabick words. Their chief commodities are sugar, flax, rice, all sorts of grains and fruit, linnen-cloth, salt, balsom, senna, cassia, butargio, &c. It is divided into four parts, which are,

1 Erriff, or the Lower Egypt, 2 Bechria, Demisor or Middle Egypt, 3 Sahid or the Upper Egypt, 4 The coast of the Red Sea.

The only river of note is *Nile*, dividing this country into two parts, the most famous river in the world.

Chief mountains are those which were anciently called *Montes Lybici*.

Principal lakes are two, viz. 1 Mareotis, now Auctacon, 2 Meeris, now Buchiarea.

II. BARBARY.

Barbery, is the most considerable country in *Africa*, lying on the W. of *Egypt*, along the *Mediterranean*.

near sea, and together with it contains all the N. parts of *Africa*; situated between the 8th and 60th deg. of lon. and between the 28th and 25th min. and the 35th and 30th min. of lat. being in length from the W. parts of *Morocco*, to the E. parts of *Barca*, about 1760 miles, and in breadth in the widest parts not 300 miles, in several places, but 60.

The inhabitants are Moors, Turks, and Arabians, very zealous Mahometans; here are many Europeans who are Christians; and some Jews; their language is for the most part the Arabick or Moorish, though differently spoken in some parts; but in *Fez* and *Morocco*, and some few other places, they use the Aquel-Amerig, or the Noble Language, the same with the Punick or old African, intermixed with some Arabick words; their chief commodities are honey, wax, oil, sugar, flax, hemp, hides, cordevants, dates, almonds, mantles, &c. It is divided into six parts, which are,

1 Kingdom of *Morocco*. 2 Kingdom of *Fez*. 3 Kingdom of *Algiers*. 4 Kingdom of *Tunis*. 5 Kingdom of *Tripoli*. 6 Kingdom of *Barca*.

Rivers of chiefest note are four, viz. 1 *Guadebar*, 2 *Major*, 3 *Nachan*, and 4 *Ommiribili*.

Chief mountains are the mountains of *Atlas* or *Audical*, which part this country from *Biledulgerid*.

III. BILEDULGERID.

Biledulgerid, or the country of *Dates*, is a large, but inconsiderable country on the S. of *Barbary*, and W. of *Egypt*, situated between the 5th and the 60th and 30 min. of lon. and between the 21st and 45 min. and the 23 deg. of lat. being in length from the *Atlantick* Ocean to the borders of *Egypt*, about 3000 miles, and not 450 broad in the widest place, and in some places not above 100.

The inhabitants are for the most part followers of Mahometanism, brought in anno 710, but a great many

are still Idolaters ; their language is chiefly the Arabick though in many places ill spoken, and in many places they use the Punick or old African ; their chief commodities are corn, cattle, dates and indigo. It is divided into 8 provinces, which are,

1 *Tesset* or *Sus*, 2 Kingdom of *Dara*, 3 *Segelmessa*, 4 *Tegorarin*, 5 *Zeb* and *Mezzab*, 6 *Techort* and *Guargala*, 7 *Biledulgerid*, 8 The desarts of *Barca*.

Rivers of greatest note are, 1 *Dara*, and 2. *Zizus*.

Mountains of chiefest account are those of *Atlas*.

IV. S A R R A.

THE desarts of *Sarra* or *Zaara*, lie on the S. of *Biledulgerid*, situated between the 4th and the 56th deg. of lon. and between the 12th and the 28th deg. of lat. being in length from the *Atlantick* ocean, to the E. parts of *Gaoga*, about 2840 miles ; and in breadth from the N. parts of *Berdoa*, to the S. parts of *Borno*, about 780 miles, in some places but 240, in others 120 miles.

The inhabitants are both Mahometans and Gentiles, with some Libertines, who have not the least signs of religion or worship ; their language is mostly a corrupt Arabick and the old Puniek, and in some places that of the Negroes ; their only commodities are some dates, camels and cattle. It is divided into seven provinces or desarts.

1 Desart of *Zauhaga*, 2 Desart of *Zuenziga*, 3 Desart of *Targa* or *Zaghara*, 4 Desart of *Lemta* or *Suma*, 5 Desart and kingdom of *Berdoa*, 6 Desart and kingdom of *Borno*, 7 Desart and kingdom of *Gaoga*.

Rivers of greatest note are two, viz. 1 *Ghir*, and 2. *Riv de Cavollos*.

Chief mountains are those called *Girgiris*.

Principal lakes are, 1 *Borno*, and 2. *Targa*.

V. NUBIA

V. NUBIA.

THE Kingdom of *Nubia*, is a considerable country on the S. W. of *Egypt*, and S. of the desarts of *Barca*, between the 48th and the 20 min. and the 65th and 40 min. of lon. and between the 10th and 5 min. and the 23d and 5 min. of lat. being in length from the borders of *Egypt* to the borders of *Biafara*, about 1080 miles, and the breadth about 650 miles, according to this situation.

The inhabitants are both Mahometans and Pagans, but yet retain some signs of Christianity, as baptism in many places; they have a language which seems to be made up of Arabick, Chaldean and Egyptian; some publick devotions are performed in old Coptick; their chief commodities are gold, sugar, ivory, arms, &c.

It is so little known to us, that I cannot find how it is divided, but howsoever, I find the names of six provinces, viz. 1 Gorham, 2 Cusa, 3 Nubia, 4 Dancala, 5 Jalac, and 6. Bughia. Most of these lie upon the Nile.

Rivers of greatest note are, 1 *Nile*, and 2. *Nubia*.

VI. NEGROELAND.

NEGROELAND, S. of *Sarra*, and on the N. of *Guinea*, situated between the 3d and the 44th and 20 min. of lon. and between the 8th and 25 min. and the 23d and 30 min. of lat. being in length from *Cape Verde* to the E. parts of *Zanfara*, about 2400 miles, and in breadth from the N. parts of *Gualata*, to the S. parts of *Molli*, 920 miles; and in some but 400 miles.

The inhabitants are in some places Mahometans, in others very simple Idolaters; here are both Jews and Christians in the European towns; their language is that called

Sungai, but in other places that called Guber; their chief commodities are ostrich feathers, gums, amber, gold, red wood, civet, and elephant's teeth, &c. It is divided into 14 provinces, which are,

1 Kingdom of *Gualata*, 2 Kingdom of *Genehoa*, *Genova*, and *Guinea*, 3 Kingdom of *Tombute*, 4 Kingdom of *Agadez*, 5 Kingdom of *Cano* or *Kano*, 6 Kingdom of *Cassena* or *Kassene*, 7 Kingdom of *Gangara*, 8 Kingdom of *Zanfara* or *Ganfara*, 9 Kingdom of *Zegzeg*, 10 Kingdom of *Guber*, 11 Kingdom of *Gago*, 12 Kingdom of *Mandinga*, 13 Kingdom of *Melli*, 14 Kingdom of *Zenega*.

The principal river of note is the famous *Niger*, dividing this country into two parts.

The chief mountain is that of *Cape Verde*.

Greatest lakes are, 1 *Guarda*, and 2. *Borno*.

VII. GUINEA.

Guinea lies along the main ocean, on the S. of *Ne-groeland*; situated between the 9th and the 33d deg. of lon. and between the 4th and 40 min. and the 12th and 25 min. of lat. being in length from *Cape Sierra Leona*, to the E. parts of *Benin*, about 1800 miles, and in breadth from N. to S. not 400, and in some places about 200 miles.

The inhabitants are for the most part gross Idolaters, every one making a god of their own: here are also many Mahometans, and Christians of the Europeans. They use the language called *Guber*, &c. The chief commodities are gold, ivory, wax, ambergrease, *Guinea-pepper*, red wood, sugar, civet, &c. It is divided into three parts, which are,

1 Coast of *Malegvette*, or the Grain coast, 2 *Propper Guinea*, 3 Kingdom of *Benin*.

Rivers of greatest note are, 1 *Volsa*, and 2. *Seviriaba*.

Chief mountain is that of *Sierra Leona*.

Principal lake is that called *Curamo*.

VIII. CONGO.

VIII. CONGO.

Congo in the largest extent lies towards the S. E. of *Guinea*, between *Abissina* and the ocean: situated between the 33d and 20 min. and the 49th deg. of lon. and between the 13th and 20 min. of N. and the 14th and 40 min. of S. lat. the whole length from N. to S. being about 1750 miles, and the breadth from E. to W. 840 miles.

The inhabitants are for the most part Idolaters, except some Christians converted by the Portuguese. They use the tongue called *Gubar*, and several others little known to us. The Portugal tongue is used in many places. The chief commodities are ebony, ivory, and slaves, with some gold and silver. It is divided into five parts, which are,

1 *Kingdom of Biafara*. 2 *Kingdom of Loango*. 3 *Auzacana*. 4 *Kingdom of Congo*. 5 *Kingdom of Angola or Ambondes*.

Rivers of note are three, viz. 1 *Zaire*. 2 *Berbela*. 3 *Coanza*.

Chief mountains are three, viz. 1 *Chrystal mountains*. 2 *Saltpetre hill*. 3 *Mountains of the sun*.

Chief lake besides that famous one of *Zaire*, is that called *Aquabunda*.

IX. ABISSINA.

Under the name of *Abissina* I comprehend all those provinces which lie between *Congo*, *Nubia*, *Zanquebar* and *Monomotapa*. Situated between the 48th and the 74th deg. of lon. and between the 20th of N. and 14th of S. lat. being in length from the N. parts of *Barnegasso*, to the borders of *Monomugi* about 2100 miles;

miles; and in breadth from the borders of *Medra* to the borders of *Adel*, about 1500 miles.

The inhabitants are chiefly Christians, having many Jewish ceremonies, and differing from all others in many points: here are also many Mahometans and Pagans. Their language is the *Habassine*, *Arabick*, &c. The chief commodities of this country are gold, metals, some gems, corn, cattle, salt, flax, wines, sugar-canes, &c. The provinces are,

1 Barnagasso. 2 Tigremahon. 3 Dobassa. 4 Fatigar. 5 Xoa. 6 Angot. 7 Bagamedri. 8 Belegvanse, 9 Amara. 10 Gamo. 11 Gora. 12 Gemen. 13 Gazabela. 14 Tirat. 15 Fungis, 16 Zet. 17 Cafates. 18 Quara. 19 Agag. 20 Nova. 21 Ambiam. 22 Damut. 23 Dambéa. 24 Vaugoe. 25 Oxa. 26 Ambian cautiva, 27 Ximenche, and 28. Sovo.

Principal rivers are, 1 *Nile*, running through this country, and 2. *Hawas*.

Chief mountains are, 1 *Amara*, and 2. *Lamalmova*.

Lakes of greatest note are, 1 *Zaire*. 2 *Zafflan*, and 3. *Niger*.

X. ZANQUEBAR.

Z *Anquebar*, taken in the largest extent, lies along the Red sea and the Oriental ocean, on the E. of *Abissina*, on both sides of the *Æquator*; it reaches from the 22d deg. of N. to the 17th and 45 min of S. lat. so that if it be measured from the borders of *Egypt* to the most S. part, it will be no less than 3000 miles; but the breadth in the widest place is not above 350 miles, and in some places but 60.

The inhabitants are for the most part Idolaters, with a great many Mahometans, and some Christians; their language is the *Arabick*, *Habassine*, and *Portuguese*, &c. The chief commodities are gold, silver, ambergrease, some pearls, and musk, rice, mill, cattle, lemons, citrons, &c. It is divided into three parts, which are,

1 The

1 The coast of *Abex* or *New Arabia*, 2 The coast of *Ajan*, 3 *Zanguebar*.

Rivers of principal note are, 1 *Magadexa*, 2 *Ingo*, and 3. *Zambuze*.

XI. MONOMOTAPA.

THE empire of *Monomotapa* lies on the W. or rather S. W. of *Zanguebar*, and S. of *Abissina*, being almost encompassed with *Casseria*; situated between the 43d and 45 min. and the 62d deg. of lon. and between the 11th and 10 min. and the 31st deg. of S. lat. being in length from the N. E. to the most S. parts 1350 miles, and in breadth about 780 miles.

The inhabitants are for the most part Idolaters, with some Mahometans, and likewise some Christians, converted by the Portuguese; their language is one of their own, and in some places a broken Arabick; the chief commodities are gold, silver, copper, ivory, salt, rice, mill, oyl, &c. It is divided into two parts, which are,

1 Kingdom of *Monomugi*. 2 Kingdom of *Monomotapa*.

Rivers of chiefest note are four, viz. 1 *Zambre*. 2 *Zambaze*. 3 *Rio de Spirito Sancto*, and 4. *Los infantos*.

Chief mountains are these called *Magrice*.

The principal lake is that called *Lachaf*.

XII. CASSERIA.

THE coast of *Casseria* or the land of *Libertines*, contains the most S. parts of all *Africa*, almost incircling the empire of *Monomotapa*; it extends from *Zanguebar* to *Congo*, along the coasts, about 3600 miles (that

(that taking in the largest extent) and the breadth in the widest place not above 400 miles, and in some places not above 130 miles.

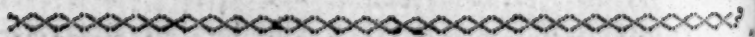
The *Cassers* themselves have not the least sign of religion or worship, living for the most part without either law, reason, or government: their language is such as no man could ever understand but themselves, it resembles the clucking of hens, and gabbling of turkeys.

These *Cassers* are distinguished into several peoples and names, viz. 1 Gorachonquas. 2 Goringhaiquas. 3 Gorinhaikonas. 4 Kochoquas. 5 *Great and little* Kari-guriquas. 6 Hosaas. 7 Chanionquas. 8 Kobonas. 9 Sonquas. 10 Namaquas. 11 Heusaquas. 12 Brigondins, &c.

Under the name of *Casseria*, in the extent before mentioned, are included, besides *Casseria* itself, the kingdoms of 1 Quietara. 2 Sofala. 3 Sodanda. 4 Chicanga. 5 Malemba, and 6. Mataman.

Rivers of principal note are three, viz. 1 Zembre. 2 Rio de Spirito Sancto, and 3. Los Infantes.

The chief mountain is that called *Mount-Table* at the *Cape of Good Hope*.



African Islands.

THEY are scattered about the great ocean on every side of *Africa*. They are chiefly,

1 *Madagascar*, about 1050 miles long and 300 miles broad.

2 Islands of *Cape Verde*, ten in number, subject to the *Portuguese*.

3 *Canary Islands*, seven in number, belonging to the *Spaniards*.

4 The *Azores*, nine in number, subject to the *Portuguese*.

Of less note are,

1 *St. Hellens*, under the *English*.

2 *Annobon*, *St Thomas*, *Princes Isle*, under the *Portuguese*, with some others of less note.

IV. AMERICA.



IV. AMERICA.

AMERICA has on the east, the main *Atlantick* or *Western Ocean*; on the west, the *Pacifick Ocean* or *Mar del Zur*; on the south where it ends in a cone, the *Magalanick Streights*; the northern bounds are yet undiscovered; the known parts are situated between the 240th and the 348th deg. of lon. and between the 63 of N. and the 55th deg. of S. lat. being in length from *Hudson's Streights* to those of *Magalanica* about 7000 miles; and the breadth from the W. parts of *Peru* to the E. parts of *Brasil* about 3360 miles, but in the middle not above 60 miles; it goes by the name of the *New World*, and also the *West-Indies*.

It was first found out by *Christopher Columbus*, a *Genoesse*, in the year 1490, soon after discovered by many others. It is most plentifully stored with all spices and fruits, and blest with such abundance of gold, that in many of their mines they found more gold than earth; it has abundance of other excellent and rich commodities; and has a great many creatures of strange shapes and natures, which (with the various sorts of plants found here) would be sufficient to fill up large volumes.

The religions and languages here used are mostly the same with the *Europeans* that govern these parts, except the unconverted natives, who are all *Gentiles*, yet have some dark notions of the soul's immortality, and the rewards and punishments after this life; they have almost as many tongues as villages; but those of *Mexico* and *Cusco* are understood in almost all parts of *America*; so it will be of little use to speak of the religions and languages in particular countries, as I have done before; therefore I must desire the reader not to expect it.

It is under the government of the *Europeans* and the natives. The *Europeans*, are *Spaniards*, who possess the largest and richest provinces; the *English*, who have considerable parts in the N. *America*; *Portuguese*, *Dutch*, *French*, and *Danes*; the natives have a
great

great many small governments, and oft maintain their liberty as well in the known as the less discovered places.

America is divided into two great parts, viz. *North America* and *South America*; these are subdivided into ten parts; which are, 1 *Canada*, 2 *New-England*, 3 *Florida*, 4 *New-Mexico*, 5 *New-Spain*; these are in *North America*; 6 *Firm-Land*, 7 *Peru*, 8 *Brasil*, 9 *Paraguay*, and 10 *Chile*, to which is joined *Magalanica*; these are in *South America*. Besides these are the isles.

Rivers of principal note are four, viz. 1 *Rio de la Plata*, 2 *River of Amazons*, 3 *Canada*, and 4 *Orenique*.

Chief mountains are the *Andes*, a vast ridge of mountains crossing *South America*.

Lakes of greatest account are, 1 *Parime*, and 2 That called *Fresh-Water-Sea*.

I. CANADA.

C*anada* is a very large country not well discovered, under which name are comprehended most of the N. parts of *America* reaching to the 63d deg. of lat. it lies on the N. or N. W. of *New-England*, and is of large extent, but the true magnitude cannot be given with any probable truth.

The known parts were first discovered, and are chiefly subject to the *French*, but are of no very great advantage to them. The *Savages* are distributed into several nations under the government of their *Sagamoses*, who are the eldest of their families.

It is a cold country full of woods, replenished with stags, conies, fowl and fish. Their chief commodities are beavers, mouse-skins, furs, stock-fish, whale-oil, and a shell-fish called *Esurgnuy*. Under this name are comprehended four parts, which are,

1 *New-Britain or Estotiland*, 2 *Canada*, 3 *New-France*, 4 *New-Scotland or Accadie*.

Chief river is that vast one of *Canada*.

Principal lake is that called *Fresh-Water-Sea*.

II. NEW-

II. NEW-ENGLAND.

Under the name of *New-England*, I comprehend all the *English* dominions which lie together in the continent on the S. of *Canada*; situated between the 29th and the 31th deg. of lon. and between the 30th and 35 min. and the 47th and 25 min of lat. being in length from the N. parts of *New-England*, to the S. parts of *Carolina*, about 1140 miles; and the breadth in the widest place is about 360 miles.

These parts were first discovered by the *English*, under the conduct of the two *Cabots*, in the year 1497, and are now possessed by the *English*, and ruled by many inferior governors, under the protection of our King; the natives likewise in several places have divers lords, which they call by the name of *Werouns*.

The air of these parts is very healthful and temperate, agreeing with our constitutions; the soil very rich and fertile, and produces many good commodities, as tobacco, corn, fruits, cattle, deal-boards, iron, tar, beavers, furs, silks, cottons, indigos, turpentine, rozen, ginger, copper, maize, and many other. It comprehends seven provinces, which are,

1 *New-England*, 2 *New-York*, 3 *New-Jersey*, 4 *Pensylvania*, 5 *Maryland*, 6 *Virginia*, 7 *Principality of Carolina*.

Rivers of principal note are four, viz. 1 *Hudson's river*, 2 *Delaware*, 3 *Sasquabanagh*, and 4 *Albermarle*.

Chief mountains are the *Apalachin* hills.

III. FLORIDA.

Florida is a large country lying on the S. W. of *New-England*, and on the N. of the gulf of *Mexi-*

co; situated, according to the best maps, between the 369th and 30 min. and the 294th and 40 min. of lon. and between the 25th and the 40th deg. of lat. so that according to this extent it is in length from E. to W. about 1200 miles, and the breadth from N. to S. is about 600 miles.

It was first discovered by the *English* under the conduct of *Sebastian Cabot*, in the year 1497, but afterwards more fully by the *Spaniards* in the year 1527, but is still very imperfectly discovered, the more known parts are chiefly under the *Spaniards*, and some under the *French*, but are now driven out. The inland parts are possessed by *Savages*, under the government and jurisdiction of divers *Paroustes* or *Caciques*, who are their lords.

The air is exceeding temperate; the soil very rich and fertile, and is extraordinary well stored with venison and fowl, having all sorts of excellent fruits, and in several places rich furs, and an immense quantity of pearls; and also has divers considerable mines of gold and silver.

Here are a great many provinces (of which we have the names of 43) but little known to us.

Rivers of greatest note are two, viz. 1 *Chucagva*, and 2 That of the *Holy-Ghost*.

Chief mountains are those called *Apulachei*.

IV. NEW MEXICO.

Under the name of *New Mexico*, are comprehended all those provinces and countries, which lie on the N. W. parts of *America*, on the W. of *Florida*, having a very large extent, but the true magnitude or situation cannot be given.

These parts are very little known to us, those that are, are chiefly subject to the *Spaniards*, discovered by them, by the means of Fryer *Marco de Niza*, in the year 1540; but of no account, being poor and barren, have few

com-

commodities besides cattle, and such like. The natives have their governors called *Caciques*.

Here are a great many provinces, and as many sorts of people, different in their language, customs and manners. The chief of these provinces are,

1 New Mexico, 2 New Granada, 3 Cibolo, 4 Quivera, 5 Marata, and 6 Anjan.

The island *Calafornia* comes also into this account, which (if the common maps be true) is about 1650 m. l. and 450 b. but very little discovered.

Chief rivers are, 1 The North river, and 2 *Tecon*.

V. NEW SPAIN.

New Spain, in the largest extent lies on the S. E. of New Mexico, and S. of Florida, washed on two sides with the sea; situated between the 254th, and 293d deg. of lon. and between the 7th and 20 min. and the 29 and 40 min. of lat. being in length from the N. W. parts of *Cinaloa*, to the S. E. parts of *Veraguay*, about 2460 miles; in breadth from *Cape de Corientes* in *Xalisco*, to the mouth of the river *Palmas* in *Panuco*, about 760 miles, in some places but 150, and in others but 80 miles wide.

As much as we can know it was for several ages mostly subject to its own Kings, but in the year 1521 it was conquered by the *Spaniards*, and has ever since remained subject to them.

It is a noble and rich country, the most populous of *America*; producing excellent mines of gold and silver, and other metals, with all sorts of grains and fruits. The chief commodities besides are wool, cotton, sugar, silk, cochineel, feathers, honey, balm, amber, salt, tallow, hides, tobacco, ginger, and diverse medicinal drugs. It is divided into three great parts called *Audiences*, viz. *Guadulajara*, *New Spain*, and *Guatimala*; these are subdivided into 22 provinces, which are,

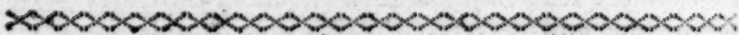
1 Cinaloa, 2 Culiacan, 3 New Biscay, 4 Zacaticas, 5 Chiameltan, 6 Guadalajara, 7 Xalisco, 8 *Bishoprick of Mechoachan*, 9 Panuco or Gualtecan, 10 *Archbishoprick of Mexico*, 11 *Bishoprick of Tlascala or Los Angeles*, 12 Guaxapa, or the B. of Antequera, 13 Tabasco, 14 Jucutan or Yucutan, 15 *Bishoprick of Chiapa*, 16 Comocusco, Soconusco or Guevetlan, 17 Guatamala, 18 Vera Pax, 19 Honduras, 20 Nicaragua, 21 Costa Rica, 22 Veragua.

Rivers of principal note are four, viz. 1 Panuco, 2 Esquitlan, 3 Los Yones, and 4 Yare.

Chief mountain may be reckoned *Potapepeck*, a burning mountain in *Tlascala*.

Lakes of chiefest account are, 1 *Nicaragua*, and 2 That of *Mexico*.

Canada, New-England, Florida, New-Mexico, and New-Spain, make up that part which is called *Mexicana*, or *North America*; those that follow are in *South America*.



VI. FIRM-LAND.

UNDER this name are comprehended all the N. parts of *S. America*, lying on the S. E. of *New-Spain*, and situated between the 293d deg. and the 328th and 25 min. of lon. and between the 10th and 40 min. of N. and the 2 deg. and 40 min. of South lat. being in length from the borders of *New-Spain* in *Panama*, to the mouth of the river of *Amazons*, about 2160 miles, and in breadth from the N. to S. about 700 miles. It makes up the two countries of *Castello del Oro*, or the *Golden Castile* and *Guiana*.

Some of these parts were first discovered by *Columbus* himself, afterwards a great part of it brought under the power of *Spain*, and now mostly under the Vice-Roy of *Mexico*, having the two parliaments of *Panama* and of *New-Granada*. The *French* and *Portuguese* have also some few places, the natives maintain their freedom

dom in a great many places, and are commonly governed by the oldest of their families.

It is a rich and fruitful country, producing much venison: fish and fowl, the air, though hot, yet wholsom. The chief commodities are gold, silver, and other metals, balsom, rozin, gums, long-pepper, emeralds, sapphires, jasper, &c. It is divided into 11 provinces, which are,

1 *Government of Panama or Firm-Land*, 2 *Government of Cartagena*, 3 *Government of Popayan*, 4 *New Kingdom of Granada*, 5 *Government of St. Martha*, 6 *Government of Rio de la Hacha*, 7 *Government of Venezuela*, 8 *Andaluzia*, 9 *Paria*, 10 *Guiana or Wiapoco*, 11 *Caribana*.

Rivers of principal note are two, viz. 1 The great *Orenique*, and 2 That of *St. Martha*.

Chief mountains are part of the *Andes*.

On the south of *Firm-Land* lies the great country of *Amazons*; according to the maps 1600 m. l. and 1000 b. in which are said to be 150 several nations.

VII. PERU.

THE kingdom of *Peru*, lies on the S. of *Firm-Land*, and on the W. of the country of *Amazons*, along the Pacifick ocean; situated between the 292d and the 316th deg. of lon. and between the 5th and 40 min. of N. and the 26th deg. of S. lat. being in length from the N. parts of *Posso* to the S. parts of *Los Charcas* about 1960 m. and in breadth in the widest part 850. in the middle but 390 miles.

As much as we can know of it, it was governed by its own hereditary kings for above 300 years, till in the year 1533 it was conquer'd by the *Spaniards*, and has ever since been subject to them.

It is the most considerable country in *S. America*, and said to be one of the richest in the world, producing such vast quantities of gold and silver, which were of prodigious advantage to the *Spaniards*; the other commodities are costly pearls, abundance of cotton, tobacco,

cochineal, medicinal drugs, &c. It is divided into seven provinces, which are,

1 *Posto*, 2 *Los Quixos*, 3 *Pacamores*, 4 *Quito*, 5 *Peru*, 6 *Los Charcas*, 7 *La Sierra*.

Rivers of principal note are two, viz. 1 *Maragnon*, and 2. *Desenquedera*.

Principal mountains are the *Andes*, which pass thro' the whole country.

VIII. B R A S I L.

Brasil is separated from *Peru* by the great country of the *Amazon*, and part of *Paraguay*, containing the W. parts of all *America*, taking it in the largest extent, it is situated according to the maps between the 320th and 348th and 13 min of lon. and between the first, and the 23d and 30 min of S. lat. being in length from E. to W. about 1600 miles, and in breadth from N. to S. about 1500 miles.

Those parts that are known were discovered by the *Portuguese*, who enjoy it, but they have only the coasts and some few leagues within the land.

Though it is under the *Torrid Zone*, yet the country is temperate enough, and the air wholesome. It produces great quantities of red wood, called *Brasil wood*, and abundance of sugar; other commodities are amber, rosin, balm, tobacco, train-oil, confitures, &c. It may be divided into two principal parts, which are,

1. The Coasts, containing fourteen captainships.
2. The Inlands, containing the more W. parts.

Rivers of principal note are, 1 *Maraguon*, 2 *Siope*, and 3 *Rio de Francisco*.

IX. P A R A G U A Y.

Paraguay taken in the largest extent is a very large country on the S. E. of *Brasil*, E. of *Peru* and *Chile*, and

and S. of the country of *Amazons*, situated between the 303d and the 338th deg. of lon. and between the 15th and the 27th deg. of S. lat. being in length from the W. parts of *Tucuman*, to the E. parts of *Guayra*, about 1900 miles; and the breadth from the N. parts of the *Propper Paraguay*, to the mouth of *Rio de la Plata*, about 1500 miles

This country was first discovered by the Spaniards, to whom it is subject. It is a very pleasant and delightful country, abounding in corn, vineyards, fruit-trees and cattle, but not so rich as some others in these parts; the other commodities are some gold and silver, brass and iron, sugars and amethysts. It is divided into seven provinces, viz.

1 Paraguay. 2 Chaco. 3 Tucuman. 4 Rio de la Plata. 5 Parana. 6 Guayra, and 7. Uruguay.

The principal river is *Rio de la Plata* or *Paraguay*, the greatest river in the world.

Chief mountains are some branches of the *Andes*.



X. CHILE.

CHile lies on the W. of *Paraguay*, and S. of *Peru*, along the *Pacifick* ocean, situated between the 297th and 307th and 30 min. of lon. and between the 26th and the 47th deg. of S. lat. being in length from N. to S. about 1260 miles, and in breadth from E. to W. in the widest place about 450 miles.

It was discovered by the Spaniards about the year 1544, who soon after possessed themselves of it.

It is a very cold country in respect of its situation, but with all exceeding rich, producing vast quantities of gold, said to be the finest in the world; as also silver, maize, corn, honey, ostriches, and several metals. It is divided into three provinces, which are,

1 *Chile*, 2 *Imperial*, and 3. *Chucuito* or *Cuyo*.

Chief rivers are, 1 *Biobeo*, 2 *Maipo*, and 3 *Coquinbo*.

Principal mountains are those of the *Andes*.

On

On the S. and S. E. of *Chile*, lies the country of *Magalanica*, a poor county, and little known to us.

American Islands.

THE *American* isles lie scattered about the ocean, chiefly on the E. of *America*. They are,

1 *Newfoundland*, 400 miles long, and 300 broad, belongs to the *French* and *English*.

2 *Bermudaz*, a knot of very small islands, belonging to the *English*.

3 The *Lucayes*, a knot of islands, about 14 in number, on the S.W. of *Bermudaz*, belonging mostly to the *Spaniards*.

4 *Cuba*, a large island on the S. W. of the *Lucayes*, 680 miles long, and 100 broad, belonging to the *Spaniards*.

5 *Jamaica*, on the S. of *Cuba*, 150 miles long, and 60 broad, belonging to the *English*.

6 *Hispaniola*, on the E. of *Jamaica*, 440 miles long, and 120 broad, belonging to the *Spaniards* and *French*.

7 *Porto-Rico*, on the E. of *Hispanolia*, 120 miles long, and 40 broad, belonging to the *Spaniards*.

8 The *Caribbee* islands, a knot of small isles on the S. E. of *Porto-Rico*, belonging to the *English*, *French*, and *Dutch*.

Here are several other islands in many parts of the ocean, but of no great note.

Thus much for AMERICA.

TER-

TERRA INCOGNITA.

BESIDES these four quarters, there are several less known parts, that go by the name of *Terra Incognita*. It may be divided into two parts, which are,

1 *Terra Borealis Incognita*, containing, 1 *Tasata*, on the N. of *Asia*; 2 *Nova Zembla*, and 3. *Greenland*, on the N. of *Europe*; 4 *Arctick Lands*; 5 *New-Denmark*; 6 *New N. Wales*; 7 *New S. Wales*; these on the N. of *America*; and 8. *Jesso* or *Zedso*, on the N. W. of *America*, &c.

2 *Terra Australis Incognita*, containing, 1 The Land of *Papons*; 2 *New-Holland*, both on the S. E. of *Asia*; 3 *Terra del Fuego*, on the S. of *America*; 4 *New-Guinea*; 5 *New-Zeland*; 6 The Land of *Quir*; these on the S. W. or W. of *America*.

Accompts

The price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

Numb.	1 Farthing.	2 Farthings.	3 Farthings.
	l. s. d. q	l. s. d. q	l. s. d. q
1	0 0 0 1	0 0 0 2	0 0 0 3
2	0 0 0 2	0 0 1 0	0 0 1 2
3	0 0 0 3	0 0 1 2	0 0 2 1
4	0 0 1 0	0 0 2 0	0 0 3 0
5	0 0 1 1	0 0 2 2	0 0 3 3
6	0 0 1 2	0 0 3 0	0 0 4 2
7	0 0 1 3	0 0 3 2	0 0 5 1
8	0 0 2 0	0 0 4 0	0 0 6 0
9	0 0 2 1	0 0 4 2	0 0 6 3
10	0 0 2 2	0 0 5 0	0 0 7 2
20	0 0 5 0	0 0 10 0	0 1 3 0
30	0 0 7 2	0 1 3 0	0 1 10 2
40	0 0 10 0	0 1 8 0	0 2 6 0
50	0 1 0 2	0 2 1 0	0 3 1 2
60	0 1 3 0	0 2 6 0	0 3 9 0
70	0 1 5 2	0 2 11 0	0 4 4 2
80	0 1 8 0	0 3 4 0	0 5 0 0
90	0 1 10 2	0 3 9 0	0 5 7 2
100	0 2 1 0	0 4 2 0	0 6 3 0
200	0 4 2 0	0 8 4 0	0 12 6 0
300	0 6 3 0	0 12 6 0	0 18 9 0
400	0 8 4 0	0 16 8 0	1 5 0 0
500	0 10 5 0	1 0 10 0	1 11 3 0
600	0 12 6 0	1 5 0 0	1 17 6 0
700	0 14 7 0	1 9 2 0	2 3 9 0
800	0 16 8 0	1 13 4 0	2 10 0 0
900	0 18 9 0	1 17 6 0	2 16 3 0
1000	1 0 10 0	2 1 8 0	3 2 6 0
2000	2 1 8 0	4 3 4 0	6 5 0 0
3000	3 2 6 0	6 5 0 0	9 7 6 0
4000	4 3 4 0	8 6 8 0	12 10 0 0
5000	5 4 2 0	10 8 4 0	15 12 6 0
10000	10 8 4 0	20 16 8 0	31 5 0 0

Accompts ready cast up for buying or selling any commodity by Number, Weight or Measure.

The Price of the commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

Numb	1 Penny.			2 Pence.			3 Pence.		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	1	0	0	2	0	0	3
2	0	0	2	0	0	4	0	0	6
3	0	0	3	0	0	6	0	0	9
4	0	0	4	0	0	8	0	1	0
5	0	0	5	0	0	10	0	1	3
6	0	0	6	0	1	0	0	1	6
7	0	0	7	0	1	2	0	1	9
8	0	0	8	0	1	4	0	2	0
9	0	0	9	0	1	6	0	2	3
10	0	0	10	0	1	8	0	2	6
20	0	1	8	0	3	4	0	5	0
30	0	2	6	0	5	0	0	7	6
40	0	3	4	0	6	8	0	10	0
50	0	4	2	0	8	4	0	12	6
60	0	5	0	0	10	0	0	15	0
70	0	5	10	0	11	8	0	17	6
80	0	6	8	0	13	4	1	0	0
90	0	7	6	0	15	0	1	2	6
100	0	8	4	0	16	8	1	5	0
200	0	16	8	1	13	4	2	10	0
300	1	5	0	2	10	0	3	15	0
400	1	13	4	3	6	8	5	0	0
500	2	1	8	4	3	4	6	5	0
600	2	10	0	5	0	0	7	10	0
700	2	18	4	5	16	8	8	15	0
800	3	6	8	6	13	4	10	0	0
900	3	15	0	7	10	0	11	5	0
1000	4	3	4	8	6	8	12	10	0
2000	8	6	8	16	13	4	25	0	0
3000	12	10	0	25	0	0	37	10	0
4000	16	13	4	33	6	8	50	0	0
5000	20	16	8	41	13	4	62	10	0
10000	41	13	4	83	6	8	125	0	0

The Quantity of the Commodity to be bought or fold.

The Price of the Commodity by the Tun, Hundred,
Pound, Ounce, Dozen, Yard, Ell, &c.

Numb	4 Pence.			5 Pence.			6 Pence.		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	4	0	0	5	0	0	6
2	0	0	8	0	0	10	0	1	0
3	0	1	0	0	1	3	0	1	6
4	0	1	4	0	1	8	0	2	0
5	0	1	8	0	2	1	0	2	6
6	0	2	0	0	2	6	0	3	0
7	0	2	4	0	2	11	0	3	6
8	0	2	8	0	3	4	0	4	0
9	0	3	0	0	3	9	0	4	6
10	0	3	4	0	4	2	0	5	0
20	0	6	8	0	8	4	0	10	0
30	0	10	0	0	12	6	0	15	0
40	0	13	4	0	16	8	1	0	0
50	0	16	8	1	0	10	1	5	0
60	1	0	0	1	5	0	1	10	0
70	1	3	4	1	9	2	1	15	0
80	1	6	8	1	13	4	2	0	0
90	1	10	0	1	17	6	2	5	0
100	1	13	4	2	1	8	2	10	0
200	3	6	8	4	3	4	5	0	0
300	5	0	0	6	5	0	7	10	0
400	6	13	4	8	6	8	10	0	0
500	8	6	8	10	8	4	12	10	0
600	10	0	0	12	10	0	15	0	0
700	11	13	4	14	11	8	17	10	0
800	13	6	8	16	13	4	20	0	0
900	15	0	0	18	15	0	22	10	0
1000	16	13	4	20	16	8	25	0	0
2000	23	6	8	41	13	4	50	0	0
3000	50	0	0	62	10	0	75	0	0
4000	66	13	4	83	6	8	100	0	0
5000	83	6	8	104	3	4	125	0	0
10000	166	13	4	208	6	8	250	0	0

The Quantity of the Commodity to be bought or sold.

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

Numb	7 Pence.			8 Pence.			9 Pence.		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	7	0	0	8	0	0	9
2	0	1	2	0	1	4	0	1	6
3	0	1	9	0	2	0	0	2	3
4	0	2	4	0	2	8	0	3	0
5	0	2	11	0	3	4	0	3	9
6	0	3	6	0	4	0	0	4	6
7	0	4	1	0	4	8	0	5	3
8	0	4	8	0	5	4	0	6	0
9	0	5	3	0	6	0	0	6	9
10	0	5	10	0	6	8	0	7	6
20	0	11	8	0	13	4	0	15	0
30	0	17	6	1	0	0	1	2	6
40	1	3	4	1	6	8	1	10	0
50	1	9	2	1	13	4	1	17	6
60	1	15	0	2	0	0	2	5	0
70	2	0	10	2	6	8	2	12	6
80	2	6	8	2	13	4	3	0	0
90	2	12	6	3	0	0	3	7	6
100	2	18	4	3	6	8	3	15	0
200	5	16	8	6	13	4	7	10	0
300	8	15	0	10	0	0	11	5	0
400	11	13	4	13	6	8	15	0	0
500	14	11	8	16	13	4	18	15	0
600	17	10	0	20	0	0	22	10	0
700	20	8	4	23	6	8	26	5	0
800	23	6	8	26	13	4	30	0	0
900	26	5	0	30	0	0	33	15	0
1000	29	3	4	33	6	8	37	10	0
2000	58	6	8	66	13	4	75	0	0
3000	87	10	0	100	0	0	112	10	0
4000	116	13	4	133	6	8	150	0	0
5000	145	16	8	166	13	4	187	10	0
10000	291	13	4	333	6	8	375	0	0

The Price of the Commodity by the Tun, Hundred,
Pound, Ounce, Dozen, Yard, Ell, &c.

The Quantity of the Commodity to be bought or sold.	Numb	10 Pence.			11 Pence.		
		l.	s.	d.	l.	s.	d.
	1	0	0	10	0	0	11
	2	0	1	8	0	1	10
	3	0	2	6	0	2	9
	4	0	3	4	0	3	8
	5	0	4	2	0	4	7
	6	0	5	0	0	5	6
	7	0	5	10	0	6	5
	8	0	6	8	0	7	4
	9	0	7	6	0	8	3
	10	0	8	4	0	9	2
	20	0	16	8	0	18	4
	30	1	5	0	1	7	6
	40	1	13	4	1	16	8
	50	2	1	8	2	5	10
	60	2	10	0	2	15	0
	70	2	18	4	3	4	2
	80	3	6	8	3	13	4
	90	3	15	0	4	2	6
	100	4	3	4	4	11	8
	200	8	6	8	9	3	4
	300	12	10	0	13	15	0
	400	16	13	4	18	6	8
	500	20	16	8	22	18	4
	600	25	0	0	27	10	0
	700	29	3	4	32	1	8
	800	33	6	8	36	13	4
	900	37	10	0	41	5	0
	1000	41	13	4	45	16	8
	2000	83	6	8	91	13	4
	3000	125	0	0	137	10	0
	4000	166	13	4	183	6	8
	5000	208	6	8	229	3	4
	10000	417	13	4	458	6	8

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

Numb.	1 Shilling.		2 Shillings		3 Shillings	
	l.	s.	l.	s.	l.	s.
1	0	1	0	2	0	3
2	0	2	0	4	0	6
3	0	3	0	6	0	9
4	0	4	0	8	0	12
5	0	5	0	10	0	15
6	0	6	0	12	0	18
7	0	7	0	14	1	1
8	0	8	0	16	1	4
9	0	9	0	18	1	7
10	0	10	1	0	1	10
20	1	0	2	0	3	0
30	1	10	3	0	4	10
40	2	0	4	0	6	0
50	2	10	5	0	7	10
60	3	0	6	0	9	0
70	3	10	7	0	10	10
80	4	0	8	0	12	0
90	4	10	9	0	13	10
100	5	0	10	0	15	0
200	10	0	20	0	30	0
300	15	0	30	0	45	0
400	20	0	40	0	60	0
500	25	0	50	0	75	0
600	30	0	60	0	90	0
700	35	0	70	0	105	0
800	40	0	80	0	120	0
900	45	0	90	0	135	0
1000	50	0	100	0	150	0
2000	100	0	200	0	300	0
3000	150	0	300	0	450	0
4000	200	0	400	0	600	0
5000	250	0	500	0	750	0
10000	500	0	1000	0	1500	0

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

Numb.	4 Shillings		5 Shillings		6 Shillings	
	l.	s.	l.	s.	l.	s.
1	0	4	0	5	0	6
2	0	8	0	10	0	12
3	0	12	0	15	0	18
4	0	16	1	0	1	4
5	1	0	1	5	1	10
6	1	4	1	10	1	16
7	1	8	1	15	2	2
8	1	12	2	0	2	8
9	1	16	2	5	2	14
10	2	0	2	10	3	0
20	4	0	5	0	6	0
30	6	0	7	10	9	0
40	8	0	10	0	12	0
50	10	0	12	10	15	0
60	12	0	15	0	18	0
70	14	0	17	10	21	0
80	16	0	20	0	24	0
90	18	0	22	10	27	0
100	20	0	25	0	30	0
200	40	0	50	0	60	0
300	60	0	75	0	90	0
400	80	0	100	0	120	0
500	100	0	125	0	150	0
600	120	0	150	0	180	0
700	140	0	175	0	210	0
800	160	0	200	0	240	0
900	180	0	225	0	270	0
1000	200	0	250	0	300	0
2000	400	0	500	0	600	0
3000	600	0	750	0	900	0
4000	800	0	1000	0	1200	0
5000	1000	0	1250	0	1500	0
10000	2000	0	2500	0	2000	0

The Quantity of the Commodity to be bought or sold.

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

The Quantity of the Commodity to be bought or sold.

Numb.	7 Shillings		8 Shillings		9 Shillings		10 Shill.	
	l.	s.	l.	s.	l.	s.	l.	s.
1	0	7	0	8	0	9	0	10
2	0	14	0	16	0	18	1	0
3	1	1	1	4	1	7	1	10
4	1	8	1	12	1	16	2	0
5	1	15	2	0	2	5	2	10
6	2	2	2	8	2	14	3	0
7	2	9	2	16	3	3	3	10
8	2	16	3	4	3	12	4	0
9	3	3	3	12	4	1	4	10
10	3	10	4	0	4	10	5	0
20	7	0	8	0	9	0	10	0
30	10	10	12	0	13	10	15	0
40	14	0	16	0	18	0	20	0
50	17	10	20	0	22	10	25	0
60	21	0	24	0	27	0	30	0
70	24	10	28	0	31	10	35	0
80	28	0	32	0	36	0	40	0
90	31	10	36	0	40	10	45	0
100	35	0	40	0	45	0	50	0
200	70	0	80	0	90	0	100	0
300	105	0	120	0	135	0	150	0
400	140	0	160	0	180	0	200	0
500	175	0	200	0	225	0	250	0
600	210	0	240	0	270	0	300	0
700	245	0	280	0	315	0	350	0
800	280	0	320	0	360	0	400	0
900	315	0	360	0	405	0	450	0
1000	350	0	400	0	450	0	500	0
2000	700	0	800	0	900	0	1000	0
3000	1050	0	1200	0	1350	0	1500	0
4000	1400	0	1600	0	1800	0	2000	0
5000	1750	0	2000	0	2250	0	2500	0
10000	3500	0	4000	0	4500	0	5000	0

The Price of the Commodity by the Tun, Hundred,
Pound, Ounce, Dozen, Yard, Ell, &c.

Numb.	1 Lib.	2 Lib.	3 Lib.	4 Lib.	5 Lib.
	l.	l.	l.	l.	l.
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25
6	6	12	18	24	30
7	7	14	21	28	35
8	8	16	24	32	40
9	9	18	27	36	45
10	10	20	30	40	50
20	20	40	60	80	100
30	30	60	90	120	150
40	40	80	120	160	200
50	50	100	150	200	250
60	60	120	180	240	300
70	70	140	210	280	350
80	80	160	240	320	400
90	90	180	270	360	450
100	100	200	300	400	500
200	200	400	600	800	1000
300	300	600	900	1200	1500
400	400	800	1200	1600	2000
500	500	1000	1500	2000	2500
600	600	1200	1800	2400	3000
700	700	1400	2100	2800	3500
800	800	1600	2400	3200	4000
900	900	1800	2700	3600	4500
1000	1000	2000	3000	4000	5000
2000	2000	4000	6000	8000	10000
3000	3000	6000	9000	12000	15000
4000	4000	8000	12000	16000	20000
5000	5000	10000	15000	20000	25000
10000	10000	20000	30000	40000	50000

The Quantity of the Commodity to be bought or sold.

The Use of the Tables before-going.

THESE tables will serve for many uses; but that which they will be most used about, as being most necessary, is, to find out the true accompt of any number of ells, yards, or pounds, being sold for so much the ell, yard, or pound.

EXAMPLE:

What will 5000 ells of linnen, at 11 pence the ell come to? To find this, First look to the price of the ell at the head of the table, then look down the side of the table for the number of ells, so you shall find in the last column but one in the table, and in the last line but one thereof, that 5000 of any thing at 11 pence a piece, comes to 229 pounds, 3 shillings, 4 pence.

If you cannot find your price in one column, or number of things in one line, you must make two or three parts thereof, and add them all together.

Another Example.

What will 1500 ells, at $9\frac{1}{2}d.$ come to?

In the table of nine-pences, you will find,

	L.	s.	d.
For 1000 nine-pences	37	10	0
For 500 nine-pences	18	15	0
In the table of half-pence,			
For 1000 half-pence	02	01	8
For 500 half-pence	01	00	10
	59	07	06

THE

Lake, especially the richest sort, is the best of all dark reds, being a most pure Crimson.

Red-lead is the lightest of all reds now in use; 'tis a sandy, harsh colour, and such an one as is not easily ground very fine, although you bestow much labour on it.

Spanish Brown, is a dark, dull red, of a horseflesh colour, 'tis an earth, it being dug out of the ground, but there is some of it of a very good colour, and pleasant enough to the eye, considering the deepness of its colour: 'tis of great use among painters, being generally used as the first or priming colour, that they lay upon any kind of work, being cheap and plentiful, and a colour that works well, if it be ground fine, as you may do with less labour than some better colours do require; the best sort is the deepest colour, and freest from stones; the other sorts are not so good to give a colour to the eye, but yet they serve as well as any others for a priming colour.

YELLOWS.

Yellow-oaker, is of two sorts, one called Plain-oaker, and the other Spruce-oaker, the one is a much lighter colour than the other.

Pink-yellow.

Orpiment is that colour that some call Yellow-arsenick.

Masticote, is a good light yellow for most uses, especially in making greens; of which several sorts may be framed out of this colour, being mixed with blue.

GREENS.

Verdigrease is the best and most useful green of all others.

Green-bice is of a sandy nature, and therefore not much used; Green-verditer is also a sandy colour, neither of them bear any good body, and are seldom used but in lanskips, where variety is required.

BLUES.

Blue-bice bears the best body of all bright blues used in common work, but 'tis the palest in colour.

Blue-verditer is a colour of no good body, but something sandy, and of no very good colour of itself, being apt to turn greenish, and being mixt with yellow, makes a good green.

Indigo

Indigo is a dark blue, if workt by itself, to remedy which, whites are usually mixt, and then it makes but a very faint blue.

Note, That the longer this colour is ground, the more beautiful and fair it looks.

Smalt is the most lovely blue of all others.

Note, That of this colour there are two sorts, the finest is that which is called Oyl Smalt.

Umber is a colour that really has no affinity with the others above mentioned, being neither a white, black, red, yellow, blue, or green, yet it is a colour of as great use as any of the rest in common painting.

How to make a SIZE for the gilding both with GOLD and SILVER.

THE operation is thus for the making of gold size; take yellow-oaker and grind it on a stone with water till it be very fine, and afterwards lay it on a chalk stone to dry; this is the common way: or you may wash your oaker, for when it is washed, to be sure nothing but the purest of the colour will be used; and besides, 'tis done with less daubing.

When your oyl and oaker are thus prepared, you must grind them together, as you do other oyl-colours, only with fat drying oyl, but 'tis something more laborious work, and must be ground very fine, even as oyl itself: for the finer it is the greater lustre will your gold carry that is laid on it.

Here, *Note*, that you must give it such a quantity of your fat oyl, that it may not be so weak as to run when you have laid it on; nor so stiff that it may not work well; but of such a competent body, that after it is laid on, it may settle itself smooth and glossy, which is a chief property of good size.

Silver-size is made by grinding white-lead with fat drying oyl, some adding a little verdigrease to make it bind.

The Practice of working Oyl-colours, and Painting Timber-work, after the manner of common Painting.

THat which I here call common painting, is only the way and manner of colouring all manner of wainscot, doors, windows, posts, rails, pails, gates, border-boards for gardens, or any other materials that require either beauty or preservation from the violence of rain, or injury of weather; the method of doing which, I shall lay down as plain as I can. Suppose then that there be a set of pallisadoes, or a pair of gates, or some posts and rails to paint, and I would finish them in a stone-colour; first look over the work, and take notice whether the joints be open in the gates, or whether there be any large clefts in the posts, for if these are not secured the wet will insinuate itself into those defects, and make the quicker dispatch in ruining the whole work; let the first business therefore be, to stop up these places smooth and even, with a putty made of whitening and linseed oyl, well beaten together on the grinding-stone, with a wooden mallet, to the consistence of a very stiff dow, and with this let all the crannies, clefts, and other defects be perfectly filled up, that it may be equal to the surface of the stuff, then proceed to the priming of the work with some Spanish brown well ground and mixt very thin with linseed oyl; with this do over the work, giving it as much oyl as it will drink up; this in about two days will be indifferent dry, then if you would do the work substantially, do it over again with the same priming colour; when this is thorough dry, then take white lead well ground and tempered up, not too thin, for the stiffer you work it, the better body will be laid on, and the thicker coat of colour that your timber is covered withal, the longer 'twill last; let this colour be well rubbed on, and the whole surface of the work be so entirely covered, that there remain no creek nor corner bare, which you may easily do by jobbing in the point of a bristle brush: let this first colouring dry, and then go over it a second time, and if you please a third also; the charge will be a little more, but the advantage will be much more great.

This

This course is sufficient for any kind of timber-work that requires only a plain colour; whether you thus cover the work with a stone-colour, or else with a timber-colour in umber and white, or a lead colour in indico and white, that with white being the cheapest of the three by much; nay, I have known some lay over their work only with a coat of Spanish brown, by tempering it up more stiff than was done for the first two primings, which in some respects is cheapest of all, and preserves the timber perhaps as well as any. Now he that is able to bring the work thus far on, has proceeded to the highest pitch of that common painting that aims at preservation beyond beauty, though something of beauty is necessarily included in this also; but this is not all, for he that is arrived thus far, is in a fair way to other perfections in the art of painting: but for the panneling of wainscot with its proper shadows, and for imitating olive and walnut-wood, marbles and such like; these must be attained by ocular inspection, it being impossible to deliver the manner of the operation by precept without example, and I am bold to affirm, that a man shall gain more knowledge by one day's experience, than by a hundred spent to acquire it in some other way.

I advise therefore all those that desire any insight into this business, to be a little curious, if opportunity offers, in observing the manner of a painter's working, not only in grinding his colours, but also in laying them on, and working in them; in all these observing the motion of his hand, in the manage of any kind of tool, and by this means, with a little imitation, joined to the directions here given; I doubt not but in a short time you may arrive to great proficiency in the business of common painting.

Note, That if when you have made use of your colours, there be occasion of a small cessation till the work be finished; in this case 'tis best to cover the colour in your pots with water, for that will prevent their drying, even in the hottest time.

And for your pencils, they ought, so soon as you have done working, to be well washed out in clean lintseed-oil, and then in warm soap-suds; for if either oil or colours

colours be once dried in the brush or pencil, 'tis spoiled for ever.

It has been observed, that timber laid over with white, when it has stood some time in the weather, the colour will crack and shrink up together, just as pitch does, if laid on any thing that stands in the sun; the cause of this is, that the colour was not laid on with a stiff body, able to bind itself on firm and fast.

If you shall at any time have occasion to use either brushes that are very small, or pencils, as in many cases there will be occasion, you ought then to dispose of the colours you use upon a pallet (*which is a wooden instrument, easy to be had at any colour-shop*) and there work and temper them about with your pencil, that the pencil may carry away the more colour; for you are to note, that if a pencil be only dipt into a pot of colour, it brings out no more with it than what hangs on the outside, and that will work but a little way, whereas if you rub the pencil about in the colour, on the pallet, a good quantity of colour will be taken up in the body of the pencil; and besides all this, you may work your pencil better to a point on a pallet, than you can do in a pot; the point of a pencil being of greatest use in divers cases, especially in drawing of lines and all kind of flourishing.

What COLOURS are most suitable, and set off best one with another.

BY setting off best, I mean their making each other look most pleasant; for two of some particular colours put together, or one next the other, shall add much to the beauty of each other, as blue and gold, red and white, and such like: but green and black put together, look not so pleasant, neither do black and umber, or haw colour, and such like.

All yellows then set off best with blacks, with blues, and with reds.

All blues set off best with whites and yellows.

Greens set off well with blacks and whites.

F f

Whites

Whites set off well enough with any colour.

Reds set off best with yellows, and whites and blacks.

Gold looks well upon a white ground, especially if the matter to be gilt be carved.

Gold and black shew also very well.

Gold on timber-colour shews also very well.

So does gold and a horseflesh colour, made with the brightest Spanish brown.

But the most glorious ground of all others for gold are the vermillion red, the smalt blue, and the lake, laid on a light ground.

Of some Colours that arise from mixture.

Ash-colour is made of white-lead and lam-black; if a deep ash-colour, then take the more black, but if a light one, then take but little black, and most white.

A lead colour is made of indico and white.

A colour resembling new oaken-timber, is made of umber and white-lead.

A flesh-colour is compounded of lake, white lead, and a little vermillion.

A buff colour, take yellow-oaker, and white-lead.

For a willow-green, take verdigrease alone.

For a light willow-green, take verdigrease and white.

For a grass-green take verdigrease and pink.

A carnation is made of lake and white.

Orange-colour, yellow-oaker and red-lead.

A light timber-colour, mix spruce oaker and white, and a little umber.

Brick-colour, red-lead, a little white and yellow-oaker.

For a straw-colour, take white and a little yellow-oaker.

Olive-wood is imitated with oaker, and a little white veined over with burnt umber.

Walnut-tree is imitated with burnt umber, and white, veined over with the same colour alone, and in the deepest places with black.

Pales and posts are sometimes laid over only with white, which they call a stone-colour.

Sometimes posts and pails are laid over with indico and white, which is called a lead-colour.

Window-frames are laid in white, if the building be new, but if not, then they generally are laid in lead-colour, or indico and white, and the bars with red-lead.

Doors and gates, if painted in pannels, then the shadow of a white ground are umber and white, but if laid in a lead-colour, then the shadows are lifted with black.

'Tis not possible to set down all those varieties of colours that may be produced by mixture; they that would see more, may peruse Dr. Salmon's polygraphice, where they shall find great variety. But those which I have here given an account of, are sufficient for common painting.

How to guild with GOLD on an oily Size, either Letters or Figures, &c.

WHatsoever you would guild must first be drawn with gold size (the making of which is already mentioned) according to the true proportion of what you would have guild, whether figure, letter, or whatever else it be; when you have thus drawn the true proportion of what you would have guild, let it remain till it be sufficiently dry to guild upon, which you shall know by touching it with the end of your finger; for if your finger stick a little to it, and yet the colour come not off, then it is dry enough; but if the colour come off on your finger, then it is not dry enough, and must be let alone longer; for if you should then lay your gold on, it would so drown it, that it would be worth nothing: but if your size should be so dry as not to hold your finger as it were to it, then is it too dry, and the gold will not take; for which there is no remedy but new sizing; therefore you must watch the true time that it be not too wet or too dry; both extrems being not at all convenient.

When your size is ready for gilding, take your book of leaf-gold, and opening a leaf of it, take it out with your cane plyers, and lay it on your gilding cushion, and if

it lie not smooth, blow on it with your breath, which will lay it flat and plain, than with a knife of cane, or for want of it, an ordinary pocket-knife, that hath a smooth and sharp edge; with this (being wiped very dry on your sleeve that the gold stick not to it) let your leaf gold be cut into such pieces, or forms as your judgment shall think most suitable to your work.

When you have thus cut your gold into convenient forms, then take your gilding pallat, (*'tis a flat piece of wood about three inches long, and an inch broad, upon which is to be glewed a piece of fine woollen cloth of the same length and breadth,*) and breath upon it to make it dampish, that the gold may stick to it; with this tool take your gold up (by clapping it down on the several pieces you had before cut into forms) and transfer it to your size, upon which clap it down according to discretion, and your gold will leave your tool, and cleave to your size; which you must afterwards press down smooth with a bunch of cotton, or a hare's foot; and this you must do piece by piece till you have covered all your size with gold; and after it is fully dried, then with your hare's foot brush off all the loose gold, so will your gilding remain fair and beautiful.

If your work to be gild be very large, open your book of leaf-gold, and lay the leaf down on your work without cutting of it into pieces, and so do leaf by leaf till you have covered quite over what you intend to gild: and if some particular places should miss there, take up with a small bunch of cotton a piece of leaf-gold, cut to a fit size, and clap it on, that the work may be entirely covered; and if the gold be to be laid in the hollows of carved work, you must take it up on the point of a camel-hair pencil, and convey it in, and with the said pencil, dab it down till it lie close and smooth.

How to gild with SILVER.

IN laying on silver upon an oily size, the same method in all respects is required as for gilding with gold; save only in this, that the size upon which silver is laid, ought to be compounded of a very little yellow oaker, and

and much white-lead; for the size being of a light colour, the silver laid on it will look more natural, and retain its own colour better, the whiter the size is.

Note, That the common painters do now generally in gilding use more silver than gold, in most works that are not much exposed to the air, to which they afterwards give the colour of gold, by means of the lacker-varnish, whose use is now so common, that if they guild any thing that stands free from the weather, they only guild with silver, and so give it the colour of gold with a lacker varnish, made of gum-lake, dissolved in spirit of wine, and laid over it.

Some DIRECTIONS for mixing of Oyl-colours for divers Purposes, in the Art of Colouring Prints with Oyl-colours.

Colours for several Faces.

FOR faces that are accounted fair, take white-lead, a little vermilion and a very small touch of lake.

For the lips take more of the vermilion and lake than you did for the face.

For a brown face taken burnt oaker and white.

For a tawny Moor, take cullens earth, a little burnt oaker, and a little white.

Colours for Hair.

For a brown hair, mix umber and a little black and white.

For a yellow hair, take stone-oaker, white-lead and a little vermilion.

For a flaxen hair, take white-lead, stone-oaker, and a little cullens earth.

Linnen is done with white-lead or ceruse.

Silver is done with white, a little smalt, and some white masticote.

Gold is done with red orpiment and white masticote, of each an equal quantity.

Colours for Garments.

For blue garments the best smalt and white lead.

For a grass green, mix verdigrease and a little pink-yellow.

For a willow green, mix verdigrease and a very little white.

A sea green is made by mixing green verditer, pink, and white-lead.

A French green is made by mixing pink and indico.

A carnation by mixing lake and white-lead.

A crimson is made by mixing vermillion lake and white.

A scarlet is only vermillion laid on alone.

A cherry colour is made by mixing vermillion and white-lead.

For yellow, lay on either yellow orpiment, or yellow masticote; if your yellows are more pale, then mix white with the former.

For an orange colour, mix red orpiment and a little vermillion.

For a purple, mix smalt, lake and white.

For a violet, mix bice and lake.

A straw-colour is made with white, yellow-oaker and a very little umber.

An ash-colour is made by mixing black and white.

A chefnut colour is made by mixing umber, lake and white.

A dove colour, or the wings of an angel, take white, a little lake, and a little smalt.

Colours for Trees.

For the bodies of trees, take pink, yellow, white-lead, yellow oaker, and a little black.

For the leaves of them that are near the eye, take verdigrease and pink, or if darker coloured, then take indico and pink.

For leaves of trees farther off, take green verditer, pink, and white-lead.

For them that are farthest of all, take terra-verd and white.

Colours for Grounds behind a Picture.

Note, That a light hair requires a dark ground, and a dark hair a light ground.

Ground colour for a picture with a light hair, is made with umber, white and black.

A ground colour for a dark hair is made with umber and white.

For Ground in a Landskip.

Take pink, oaker, and white, with a little green verditer.

For country houses, at a distance, take white-lead, yellow-oaker, and smalt; the same colour serves also for houses of stone.

For brick-houses or walls, take yellow-oaker burnt, and white-lead, if the work be far off, but if near, then *Indian-red*, and a little white.

For pails of wood or other timber-work, of what kind soever, in country cottages, take umber, white, and a little oaker.

Sky-Colours.

Are made of smalt and white for the highest skies, more white for the lower, and yellow mixt with a little vermilion for the lowest of all.

The whole Art and Mystery of Colouring Maps, and other Prints, in Water Colours.

HAVING, as yet, seen nothing published upon this subject that is authentick, I have thought fit for the sake of those that are inclined to ingenuity, to set forth the way and manner of doing this work, it being an excellent recreation for those gentry, and others, who delight in the knowledge of maps; which by being coloured, and the several divisions distinguished one from the other by colours of different kinds, do give a better idea of the countries they describe, than they can possibly do uncoloured.

Now to perform this work after the best manner, there must be provided in the first place a lye made with tartar, and a gum-water.

To

To make the tartar lye do thus, take two ounces of the best white tartar, which is a stony substance that sticks to the side of the wine vessels, and is sold by the druggists. Wrap it up hard and tight in half a sheet of brown cap paper, wet it thoroughly in water, and put it into a clear fire, either of wood or sea-coal; let it remain therein till it be red hot quite through, then take it out with a pair of tongs, and put it immediately into a pint of water, and with your fingers rub it well to pieces; put it into a long narrow glass, and in a day or two the black will all settle, and the lye will become pure clear: pour off the lye into a clean glass, and keep it close stopt for use.

To make gum-water, take three ounces of the whitest and clearest gum-araback, which is also sold at the druggists, and beat it as small as you can bruise it; then put it into a pint of fair spring water, and let it dissolve therein, which will be much hastened by skaking the glass three or four times a day very well, that the gum that is dissolved may mix the better with the water that is above it: and when it is all dissolved, if there appear any foulness in it, strain it through a rag into a clean earthen dish, and put it into a glass, and stop it up for use. *Note*, That too much of this ought not to be made at a time: for if the gum be kept dissolved too long in the water, it will rot, and so be of no use; therefore observe to make it fresh once in two months, or three at the farthest.

In the next place, you must prepare or make your colours ready for use, and the best for this work are those that follow; Namely,

Copper-green, and that is made thus, take a pound of right French verdigrease, made at Montpelier, this being the best, for the verdigrease made at any other place will fade. To this add three ounces of cream of tartar, beat them both into a fine powder, and take care, while the verdigrease is in the pounding, to stop your nose, and hold a bunch of fine linnen in your mouth to breath through, else the subtle powder of the verdigrease will be apt to offend; and when this is done, mix both the powders in two quarts of water, and boil it in an earthen pipkin till it boil away a quart, then strain it out; when

when cold, and put the liquor into a glass, stop it up, and let it stand to settle till the liquor be very clear, so you will have a delicate green: but sometimes the *verdigrease* not being always of a goodnels, the colour may not be deep enough for some uses. In this case, put some of it into a broad earthen dish, and set it over a chafing dish of coals, and by a gentle heat, diminish so much of the liquor, till by trying on a paper *and letting of it dry*, the colour please you: and here you are to note, That if it shine too much when dry, it is not right; for it is not rightly made except it but just shine, and if you cannot make the colour deep enough by evaporating by heat, the abounding liquid, without making it shine too much, it were better to add some more *verdigrease*, and boil it up anew till it become a transparent deep *willow-green*. If you would make but a pint of this, you must take but half the quantities of each: and you are also to take notice, that this is a colour that will keep many years without decaying, if the glass that contains it be close stopt up.

The next colour needful to be made, is a stone colour, or a liquor of *myrrh*, which is thus done; take a pint of your tartar lye, and add to it an ounce of the best *myrrh* in powder, which you can get at the druggists, and boil it till the *myrrh* is dissolved, which will be done in a small time; let it settle and pour of the clear for use, which you must keep close stopt up: this is also a tincture which will never decay, and may be made fainter or deeper by boiling more of the liquor away to make it deeper, or by adding water to it to make it fainter.

And in the last place, there is required a *crimson colour* which is speedily made thus. Buy at the druggists some good *cochineel*, about half an ounce will go a great way. Take thirty or forty grains, bruise them in a galley-pot to fine powder, then put to them as many drops of the tartar lye as will just wet it, and make it give forth its colour; and immediately add to it half a spoonful of water, or more if the colour be yet too deep, and you will have a delicate purple liquor or tincture. Then take a bit of *allum*, and with a knife scrape very finely a very little of it into the tincture, and this will

will take away the purple colour, and make it a delicate *crimson*. Strain this through a fine cloth into a clean galley-pot, and use it as soon as you can, for this is a colour that always looks most noble when soon made use of, for it will decay if it stand long.

Indico is another colour used in colouring of maps. This is bought at the colour shops that sell paint, and it must be ground very fine on a stone, as you do oyl colours, with a little tartar lye to make it give its colour, and look the brighter, when 'tis ground perfect fine like a thick syrrup, add gum-water to it till it be thin enough for your purpose, and keep it in a glass close stopt up, but it will settle so, that when you use it you must stir it up from the bottom.

For a yellow *gumboge* is the best, it is sold at the drugists in lumps, and the way to make it fit for use, is to make a little hole with a knife in the lump, and put into the hole some water, stir it well with a pencil till the water be either a faint or a deeper yellow, as your occasion requires, then pour it into a galley-pot, and temper up more, till you have enough for your purpose.

Red lead is also a colour much used in this work, and so is *orpiment*; both which you may buy at the colour shops very finely ground, so that they need only to be tempered with gum-water to be fit for use.

Blue bice is also used often, which needs only to be tempered with gum-water, and when men design to be curious, they may use instead thereof *ultramarine*, which is the best and most glorious of all blues, but vastly dear; yet small papers of it of about two shillings price may be bought at some colour shops, which if carefully used, will go a great way: it needs only to be tempered in a very small gally-pot with a little gum-water, till it lie on the paper with a good colour.

There is also an exceeding glorious red or crimson colour, called *carmine*, which is also very dear, yet about half a crowns worth will go a great way in the uses to which it is put; it needs only to be tempered with gum-water, and gives several degrees of colour according as it is thicker or thinner tempered.

Vermillion is also used in some cases. This is a glorious *scarlet*, and needs only to be tempered with gum-water

water, for it may be bought very finely ground to powder at the colour shops; only 'tis to be noted, that this colour shews much brighter when dry, if glazed over with some thick gum-water, made by putting two ounces of gum-araback to half a pint of water, or less.

And for some uses, burnt *umber* ground very fine with water as thick as possible, and then tempered up with gum-water to a due thickness, makes a good transparent colour.

There is another colour needful in this work, which is a most pleasant *grass green*, and that is made thus, take a lump of *gumboge*, and make a little hole in it, then put therein some *copper green*, stir it about with a pencil, and from a willow you will see it turn to a *grass-green*, which you may make deeper or lighter, as you stir it about a longer or a lesser time.

Of the Practice of Colouring Maps.

The colours being prepared as before is directed, you may proceed to colour a map in this manner, first take notice of the several divisions in a map which distinguish one kingdom from another, or one county from another, which are known by certain lines, or rows of pricks, or points of several sizes and shapes agreeable to the divisions they are to denote. As for instance, *Portugal* is distinguished from *Spain* by a row of large points, or pricks, and the provinces of that kingdom, or shires, as we call them in *England*, are distinguished one from another by lines of lesser points or pricks. Now if you were to colour the kingdom of *Portugal* do thus, first with a small camel pencil in a duck's quill, colour over all the hills within the large prick line that divides it from *Spain* with the *tincture of myrrh* very thin; then if there be any woods, dab every tree with the point of a very fine pencil dipt in *grass green*, made of *copper green* tempered up with *gumboge*, but in dipping your pencils into any colour, stroke it against the sides of the pot or glass in which you put it that the colour may not drop from it and spoil your work; then with another pencil dipt in *red-lead*, tempered thinly with gum-water, let the *principal cities and towns* be done over that the eye may more readily perceive them.

them. Lastly, with a duck's quill pencil dipt in *copper green*, trace out the bounds of one of the provinces, keeping the outmost edge of the pencil close to the pricks, and be careful to lay your colours all alike, and not thick in one place and thin in another, or too deep in some places and too light in others, and when 'tis almost dry, take another clean pencil of the same size, and dip it in water, stroaking the water out well, and therewith rub upon the inside of the coloured line, till it take away most of the colour on the edge, and make it grow faint and lose itself by degrees, and continue so to do till you have gone quite round; then take yellow made of *gumboge*, and go round the pricks that divide the next province, sweetning over the innermost side of it; when almost dry, with a pencil dipt in water, as you did before, do over the next to that with the *crimson tincture* made with *cochineel*, and the next do round with *red-lead*, and the next to that with *grass-green*, and the next to that with any of the former colours that will so agree with the work, that two joining provinces may not be coloured with the same colour, for then you could not distinguish them.

And in this work of dividing, observe, that when your boundary lines pass through woods already coloured, or hills, observe then, I say, to miss those woods and hills in your drawing a colour round the province, and be careful also not to draw any colour over the cities or towns that are painted red, for that spoils the beauty.

And when you have coloured over or divided all the counties, then colour *the sea shoar*, and all *lakes of water*, if there be any, with thin *indico*, working of that side of the colour which is from the land faint, with a wet pencil as before was taught, and if there be any ships, colour the water shaded at the bottom with the same *indico*, painting the hull of the ship with *umber*, the sails with tincture of *myrrh*, and the flags with *vermillion* or *blue bice*, and if they are represented as firing their guns, let all the smoke be done with very thin *bice*, and as for the margin or square stick of degrees, as the gravers term it, which goes round the map, let that be coloured either with yellow

or

or red lead, or crimson, none but those three colours serving well for this purpose.

As for the compartment or title, which consists generally of some neat device to set the map off, and make it appear more beautiful, it may be coloured according to the nature of it. As for instance, *Crowns* or any other thing representing gold with yellow, shadowed in the darkest parts of the graving with orpiment, the hair of men or women with tincture of *Myrrh*, or if black, with half-water half common ink, or with burnt *umber*; the flesh of women or boys with a very little of the tincture of *cochineal*, in a large quantity of water, and garments either with thin green shadowed with thicker, and with the tincture of *cochineal* made thin with water, and shaded with the same colour thicker, and thin *bice*, and shadowed with a thicker mixture of the same, or with *vermillion* shaded with *carmine*. In general observe, that the thinner the colour is laid in the lightest part of all garments, and the deeper in the shades, the more beautiful it appears; for the thick of the same colour is the most natural shade for most colours, except *yellow* and *blue*, for *blue* sometimes requires to be shaded in the darkest places with a black, or at least with thick *indico*; and *yellow* requires *red-lead* or *crimson*, and sometimes it appears very pleasing when shaded with *green*.

If you are to paint clouds, do them sometimes with tincture of *Myrrh*; and in some cases, with a very thin crimson, and for variety, you may do some with thin ivory black, ground very fine, and tempered up with gum water. Smoak is best represented with very thin *blue bice*, and if you are to colour any representation of sea waves, do it with *indico*.

If you are to colour any representations of land, do the lightest parts over with very thin yellow that represents a straw colour, shading it with orpiment; and in other parts, do it with light green, shaded with a deeper green; rocks must be done with tincture of *myrrh*, and the trees some with *copper green*, some with dark *grass green*, and some with thin *umber*; houses may be done with *red-lead*, and the tiles with *vermillion*, or with *bice* to represent blue slate, castles may be done with tincture of *myrrh* in

some parts, in others, with thin *red-lead*, and the spires and pinacles with *blue*.

But when all is said that can be said, the only way to colour maps well, is by a pattern done by some good workman, of which the *Dutch* are esteemed the best; three or four such maps coloured by a good artist, are sufficient to guide a man in the right doing of his work; but if he cannot obtain this, he may by a few trials grow a good artist in a short time; for this is only attained to by practice, and if a man does spoil half a score maps in order to get the knack of colouring a map well at last, there's no man that is ingenious will grumble at it.

The art of colouring well may be attained to by practice, as was said, but the hardest thing is, to know rightly how to make and prepare the colours well, without suffering them to sink into it, all that are here mentioned will lie fair and pleasant to the eye, and 'tis the fairness of the colour is most esteemed in this art of map-painting: but if the paper be not good and strong, no art can make the colours lie well; therefore in buying maps, chuse those that are printed on the thickest or strongest paper.

DIRECTIONS *how to lay on Metzotinto Prints on Glass.*

IN undertaking this, curiously lay the prints flatways in warm water, of the finest and thinnest paper, for that which is rough and thick will not do near so well, if at all; let them soak well, and your glass being very white and thin, go over it with Venice turpentine spread thin with a pliable knife, and daub it all over with your finger, that the turpentine may seem rough.

This done, take the soaked print, and lay it on a clean cloth smooth, then press it with another to take out the water, then lay it on the glass, the print next it, beginning at one end, stroaking outwards the part already fixed to the glass, that neither wind nor water may be retained between to wrinkle it; then with a
little

little sponge, or your hand, wet the backside, and lightly by degrees roll off the paper carefully, without making holes, especially in the lights, which are the tenderest, and when the print appears very plain on the backside, let it dry about two hours, then varnish it over with turpentine or mastick varnish till you can see thro' it, and a night's drying will prepare it to be work'd on with colours.

If you would have all the paper off, so that nothing but the print may remain, lay it as before with oyl of mastick, and a little turpentine, and a brush will fetch off the paper.



T H E

ART *of* MAKING Artificial FIREWORKS.

1. *The Ordering and making, in a true Proportion, the Moulds for FIREWORKS.*

BEfore you proceed to the making of fireworks, it is requisite to understand how to order, and make your moulds and other instruments for the same; and first for your moulds, you must provide a piece of good dry box, holly, walnut tree, crab tree, or some such like tough wood, without shakes or knots: and when you have thus done, it is fit to know of what length and breadth

you desire to have your mould, for following this kind of proportion, all other sorts of moulds are made great and small, therefore you ought to have a turner to turn and bore the same: as for example: I would have the hole of a mould bored but an inch diameter, or wide, then the length of the mould must be six times so long as the hole is wide (which is six inches) and on each side of the hole half an inch thick: so that when the mould is turned round, it is two inches over in breadth. When you have done this, you must have a bottom made, and it is to be fitted therein.

II. *The Order and making of Rowlers, Rammers, and other Things for the Coffins.*

HAVING provided your mould, then you are to fit your rowler, which must be two third parts of the breadth of the bore of the mould, and the length thereof six inches longer than the mould; which is for rowling of your paper, with a hole to be bored in the bottom to receive a wire, which must be fasten'd in another piece of wood somewhat shorter, to take out at your pleasure, the use thereof shall be described, when I shall shew the order of making the coffins.

When you have fitted your rocket, then proceed to the making of your rammers, which must always be two at the least, for each several mould as they increase in largeness, so you must be fitted with several rammers, by reason of the taper needle: having fitted your rammers, provide a piece of box, which must serve to make your whole coffins, to put the work which you intend, on the head of your rockets.

III. *How to order and make the Coffins of Paper.*

HAVING explain'd the manner and form of the moulds, with the other things belonging to the same; I will now shew the use of them in their several orders.

Provide

Provide you some good large strong paper for your work : and to know what length your paper must be, let it be always the length of your mould, so shall you have one breadth left above the mould, the use whereof shall be shewed hereafter. Now having provided your paper in length ready, take your roller and one length of paper, and begin to roll ; when you have rolled one sheet, you must have a board with a handle to roll it with, which must be done in this manner : you must hold the roller in your left hand, and with your right hand hold the board by the handle, and then lay down your roller upon some smooth chest or table, which when you have done, roll another length of paper, and so proceed in rolling between every sheet, until you have rolled on so much, as will fill the mould very streight. When you have this done, draw forth the roller about an inch, and then take the other short roller, and put it in, and there you shall have place left for the choaking of the rocket, of which is next following:

IV. The Order and Manner how you shall choak a Rocket.

When you are to choak a rocket, you must have an iron hook, or a staple driven into some post, to which you must fasten your cord, which must be bigger or less, according to the bigness of your rocket, by reason that a small cord will not choak a great rocket for want of strength, and a great cord will not serve for a small one, in regard that it will make too great a choaking, so that you must have a bigger and a less ; and when you have so done, you must tie one end of the cord to the hook or staple, and at the other end, about a yard off, tie a strong stick, in fashion of a swing, (it must be strong, because it beareth the weight of the body), which, when you have provided, put the stick between your legs, and wind the cord about the rocket-case in the place appointed, which must be between the long roller and the short ; when that is done, girt it by degrees, ever turning the roller, to the end it may come together more close and neat ; and when you have sufficiently choaked it, draw forth your short roller, and

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where the choaking is, tye it about with strong pack thread, and then draw forth the roller, your coffin is ready to be filled when occasion serveth.

V. *The Manner of driving a Rocket, with the Instruments belonging thereto.*

YOur coffin of paper being finished, take it, and with your hollow rammer, force the same down close into the mould, and when you have done, strike two or three hard blows to settle the paper into its right form: which being done, then you must fill the coffin, in doing whereof you must have a care, providing a measure which may contain the twentieth part of your whole rocket; so by that means you shall not fail, but every rocket shall have a true proportion alike: as for example: I have a coffin, which being filled, will hold an ounce of mixture, or thereabouts: then I take the twentieth part, and when I find what quantity it is, I make a measure of horn or latten which shall contain so much, and then I begin to fill my coffin with one measure at a time, and putting in my rammer, I strike four or five smart blows with a good heavy mallet, and then fill another measure, and strike again, so I continue till I come to the top of the needle; then I take the said rammer, and so continue with it, till I come to the top of the mould: now the paper which is above the top of the mould, must be turned down and beaten hard: which being done, the rocket is finished from the mould, which being forced out with as much ease as you can, for the less you force it, being filled, and the needle taken out), the better it is, for knocking loosens the powder, and so causes the rocket for to fail. You should have a funnel to fill your small rockets.

Compo.

Compositions for ROCKETS for various Sizes.

Weight of Rocket.	Sal- pet.	Sul- phur.	Char- coal.	Gunpowder- Dust.
lb	lb	lb	lb	
100 or 60	30	10	20	
50	30	7	18	
20	18	12	26	
15	12	8	16	
10	9	9	20	
9	6	5	10	
5	4	8	16	
3	2	2	15	
I		2	6	32
Ounces.	Oun.	Oun.	Oun.	Ounces.
9	4	I	2	9
6	12	I $\frac{1}{2}$	4	15
3	2	$\frac{1}{2}$	I	12
I			2	15

Note, Several *rockets* being disposed round the circumference of a wheel, whether circular or polygonous, the head of the one applied to the tail of another, and the wheel put in motion; as one *rocket* is spent, another will take fire, and the wheel be continued in its rotation.

As an additional ornament to *rockets*, it is usual to furnish them either with stars, or with serpents, or sparks which take fire when the *rocket* bursts; and sometimes little *rockets* are inclosed in great ones; these are to take fire when the great one is at its greatest height.

To make stars for Rockets.—Mix 3 pounds of saltpetre with 11 ounces of sulphur, 3 ounces of beaten gunpowder, and 10 of antimony. Moisten the mass with gum-water, and form them into little balls of the size of filberds, drying them well, either in the sun or an oven. When dry, inclose a number of them in the conical cap of the *rocket*.

VI. *The manner of Heading a Rocket, with the order of Capping it.*

IN the manner of heading a rocket, you must use the thick rowler, upon which you must rowl some paper, or fine paste-board, and paste it so that it may stick very close, and then choake it at the length of the thicker part, so that it may come close to your stick in the lesser part, which will be fit to be tyed to the top of the rocket: so shall you have a coffin to put in your works, which must be of divers sorts. This being done you must provide taper caps, which must be joined to the top of the large coffin: the use of them is to keep in your works, and to cause them to pierce the air more swiftly. The manner of making these caps, is to take a pair of compasses, and describe a circle in a paste board, then cut it out with a pair of sheers, and that will make two caps being cut in the middle, and turned one corner under the other, and so pasted: and let them so pasted, be put in a napkin-press till they be dry, and when they be dry, cut out a half circle in paper, which shall fit round about the said cap, and shall serve to paste on the cap to the coffin; so you have all things ready to the finishing of your rocket.

VII. *The manner of Fastning a Rocket.*

HAVING driven your rocket, as I have shewed, with the paper turned down, you must first prime it, which must be with cotton wick made for that purpose, which you must put into the vent, leaving a piece to hang lower than the mouth of the rocket by three or four inches; which being done, tye a piece of paper over the mouth, that it may not fall out. Now having primed your rocket you may proceed to the heading of it, and that is done after this manner.

Take your rocket, and on the head you should turn down the paper, you must with a bodkin pierce two or three holes, that when the rocket hath spent itself, the works which are in the head may take fire; which holes prime with a little powder-dust, and then put on the head,

head, with the choaking fitted to your rocket, which must come over the same in such a manner, that the bottom of the greatest part must come even with the top of the rocket; which tie fast to the rocket with thread, and then put in your works; but before you put in your works, whether they be stars, or any other works, you must put in a little cotton-wool, being rowled in powder-dust, to make your stars to take fire, or likewise they may blow out: having thus done, put in your stars, or other works, and if you make more than one tire, (as you may do of your stars) then you must put more cotton rolled in powder-dust among them, or between every tire, that they may all take fire; then take your cap, and fill the hollow place with cotton, because it is light, and likewise will fire quickly; which being fitted, paste it close to the top of the coffin that it may stand upright; then you must fit your stick, for the poizing of your rocket, which ought to be eight times the length of the rocket without the head: you must get the smoothest and lightest you can, such as basket-makers use, and then cut one side of it flat at the great end, then make two notches on the round side, that the one be differing from the other, so much as is between the choaking of your rocket, and the end of the vent; for if you should tie it upon the vent it would loosen the powder, causing it to break in the firing: be careful that you tie not the wrong end of the rocket uppermost, but tie that end downward that is choaked, and with a piece of thread that is strong, tie it to the lower notch about the choaking. When you have tyed that, then tie the other higher, and let the stick come even with the top of the rocket. Then poize your rocket, by laying it on your finger two or three inches from the mouth; and if you find the stick be too heavy, cut it shorter, till you find your rocket to ballance your stick, for if the stick be too heavy, the rocket will be slug, and being too light, the rocket will fall before it be half up. These things being provided, you have your rocket ready to be fired, which must be after this manner following.

VIII. *The manner of Firing Rockets, with the Description of a Staff for the same.*

YOU must provide a long staff with a pike at one end, to be thrust hard into the ground, with a three-legged staff, having a hollow hoop at the top, to let this long staff slide up and down, to the end that having rockets whose sticks are longer than the staff, yet by raising it through the said iron hoop, you may make it four or five foot longer than it would be standing on the ground. Now this long staff must have a sliding place cut with several points, which must be near the top; and at the bottom there must be a ring of wire, to let the stick go through, which must be made likewise to slide up and down, so thrusting the small end through the said ring, your rocket will rest upon that part above, which must be just opposite in a streight line; so open the mouth of your rocket, and pull out the end of your cotton wick, and with a piece of match fastned in a lin-stock, give fire to the wick, and by degrees you shall see it fire your rocket; which ordered well, will mount very streight and high.

IX. *The order and making of other several Fireworks for the Rockets, as Serpents, Reports, Golden and Silver Rain, &c.*

THE serpents are made about the bigness of ones little finger, by rolling a paper upon a small stone, (as it was for your stars) and choaking the paper coffin an inch from the end, then fill it three inches with powder-dust, and then choak it, and then put in a little corn-powder, when your serpents have played a while to and fro, it may break and give report: you may fill it with the star mixture, and putting divers of them on the head of the largest rocket, they will first appear like stars, and when the stars are spent, take hold of the powder-dust and they will run rigling to and fro like serpents, and at last will give so many reports, very delightful to behold.

The

The reports are made in their proper cases as the serpents are, but the paper must be somewhat thicker, which will cause it to give the greater report: these are to be filled with grain powder, or half powder and star mixture.

To make the golden rain, you must get store of goose quills; and cut them of next the feathers, and fill these quills hard with the same composition that is in your rocket, and they must be put on the head of the rocket, with the open end downwards: if it were possible to put a thousand of these quills upon the head of a rocket, it were a dainty sight to see how pleasantly they spread themselves in the air, and come down like streams of gold, much like the falling down of snow, especially if the wind be any thing high.

If you will make silver rain, it is performed as the other; only you must fill your quills with the same ingredients that you did your white stars.

X. How to make your Fireworks to run upon a Line backward or forward.

TAKE small rockets, and place the tail of one to the head of the other, tying a cane to them to run on a line sloaped; the line may be a hundred yards long or longer if you please, being well stretched and set on stakes; and at last (if you please) may be placed a pot of fireworks, which being fir'd will make good sport; having serpents and other things in it, which will variously intermix themselves in the air, and upon the ground and every one will extinguish itself with the report.

XI. The making of a Ball for Water, which shall burn with great violence.

SOW a round case of strong canvas, in shape of the case for a foot ball, but somewhat less, and very round; having thus made your case, then proceed to the filling of it, which must be done in this manner: you must first put in three or four good spoonfuls of your mixture following, and with a stick made round at one end,

end, force it close together, and so continue filling it, and between every filling put in your stick and force it together, round it continually in your hand till you have finished it; which having done, sow it up close, and then arm it with small cord, which is called marling; after you have thus done, you must coat it with a quantity of rosin, pitch and tallow to dissolve, and dip your ball all over in the same, provided that you leave two vents to fire it, which must be stopped with two small sticks, till such time as you come to use them, then pulling forth the sticks, fill two vents with fine powder dust, and firing it, cast it into the water, and you shall have your desire; but you must always be sure that your ball be thoroughly fired before you cast it from you; the receipt for this ball followeth.

Take one pound of powder, eight ounces of roch-water, four ounces of sulphur, two ounces of camphire, one ounce of oyl of petre, one ounce of lintseed oyl, half an ounce of oyl of spike, and two ounces of colophonias.

XII. The Manner to compose a Ship of Fireworks, which being once fired; divers Motions will present themselves.

YOU must make a mould or body of a ship to be made, that you may take off the upper deck, to place some works underneath, where you must have a fire-wheel placed with a screw on the axel-tree; this wheel must be placed in the stern, and must turn a roller, on which must be two girts placed, that must pass on each side of the main mast, and run on to the foreship; in this wheel there must be a hollow spoak and axel-tree, as I have shewed, which must be so ordered, that the wheel being spent, it may convey fire to a tire of guns, lying round about, which must be fired with a close conveyance; and having passed that, it must take hold of another conveyance which shall give fire to certain rockets, which must be placed in the body of some figures representing mariners, and must be so fitted that they may have a cane joined to their body to guide them, that they may run on the ropes from the deck to the top of the masts.



A N

English Spelling Dictionary.

A B R

A Bandon
abafe
abafement
abafhment
abate
abatement
abbacy
abbefs
abbot
abbreviate
abbreviation
abbutals
abdicate
abdication
abdomen
abet
abettor
abhor
abhorrence
abjeft
abjection
ability
abjuration
able
abnegation
abroad
abolifhment
abominable
abomination
abortion
abound
abrenunciation

A C C

abridgment
abroad
abrupt
abcefs
abfcond
abfence
abfolve
abfolute
abftemiousnefs
abfttract
abfttraction
abftrufe
abfurd
abundance
abufe
academy
acceleration
accept
acceptablenefs
accessory
accident
accidentalnefs
acclamation
accommodate
accommodation
accompaniment
accompany
accomplice
accomplifh
accomplifhment
accord
account

A D M

accountant
accoutrement
accumulation
accuracy
accurfed
accufation
accufer
acid
acknowledgment
acquifition
action
actor
acute
adapt
adder
addition
addrefs
adequatenefs
adhere
adjacent
adieu
adjoin
adjournment
adjure
admeafurement
adminifter
adminiftration
adminiftratorfhip
admirablenefs
admiralty
admire
admit

H h

admonifh

A G I

A N A

A Z U

admonish
adopt
adorable
adornment
advancement
advantageous
adventitious
adventure
adventurous
adversary
advertisement
advice
adult
adulteration
advocate
advowson
affability
affair
affectation
affection
affectionate
affectionateness
affective
affiance
affidayit
affinity
affirm
affirmatively
affix
affluence
afford
afforded
affranchise
affray
affront
affusion
afore-hand
aggrandize
aggravation
aggression
agile

agility
agitate
agonize
agreeableness
agreement
agriculture
agrimony
aground
alabaster
albeit
alchymist
alderman
alegar
algebra
alien
aliment
allegation
allegiance
allegorical
alleviate
alligation
alligator
allowance
almanack
almighty
aloes
alphabetically
already
alteration
alternate
amain
amais
amercement
amicableness
amusement
anabaptist
anagrammatist
analogy
analysis
anarchy
anathema

anatomy
ancestors
anchovy
animadversion
animalcule
anniversary
annoy
antichamber
antimonarchical
antichristianism
antipodes
apocrypha
apoplectic
apparatus
apparition
applicable
arch-deacon
arch-bishoprick
archetype
argumentation
armada
arraignment
arrogance
arrogate
arsenal
asparagus
aspiration
associate
asswage
astonish
astriction
astrologer
astronomy
atrocious
attribute
avail
avarice
auctioneer
authority
axel-tree
azure

batchelor

B A R

B

Bachelor
backslide
backward
baggage
bagnio
bag-pipe
bailiff
bailiwick
balance
balcony
balderdash
baldness
bale
baleful
ballad
ballast
ballustrade
Bamburg
Bampton
Banbury
banditti
bandolier
bane-berry
baneful
Bangor
banker
bankrupt
Banstead
Barbadian
Barbadoes
barbarian
Barbary
barbed
barbel
barbles
barber
Barbican
Barmore
Barmote
Barnby

B E A

Barnesley
Barnet
Barnstaple
barometer
barrack
barricado
barrier
barrister
Barsted
barter
Barton
base
bashful
basil
basilisk
Basingstoke
Bassa
Bassaleys
basset
bassoon
bassrelief
bastile
bastinado
bastion
bastwick
battoon
battalia
Bautre
bawdry
Bayborough
baynard
Beachly
beacon
Beaconsfield
beadle
beadsman
beard
beast
beatific
beau
beaver

B E V

beautifie
beaux
Beckernet
Beckingham
Beckles
becomingness
bedaggle
Bedall
bedaub
Bedford
Bediford
Bedlam
beech
Beelzebub
beefom
beggery
belabour
beldam
beleaguer
Belford
belfrey
Belgian
Belgic
bellow
bellsvagger
Beltingham
belvidere
Belvoir-castle
bemire
Bemister
bergamot
Berlin
bespeckle
besprinkle
bestriden
Bethkelet
bethought
Betley
betony
betroth
bevel

B L E

beverage
 Beverly
 Bewdloy
 bewildered
 bewitch
 Bewmaris
 Bicester
 bidder
 bigotism
 bilander
 bilboes
 Bildeston
 bilious
 Billericay
 billet-doux
 Billingford
 Billingham
 binder
 Bingham
 biographer
 bird-call
 bird-lime
 Birmingham
 bishoprick
 bissextile
 bittern
 bitumen
 blabber
 Blackburn
 blackmoor
 blackness
 blacksmith
 bladder
 Blaize
 blameable
 Blandford
 blanket
 blaspheme
 blazon
 bleak
~~bleat~~

B O S

Blenor-hasset
 blindfold
 blinkard
 blithe
 blockade
 blockhead
 bloodshed
 blodshot
 blossom
 blowze
 blunder
 bluntness
 boaster
 boatswain
 bobtail
 bodice
 boggle
 boggy
 boiler
 boisterous
 boldness
 bolster
 Bolton
 bombardier
 bombast
 bombazine
 bondage
 bonfire
 bongrace
 bonnet
 booby
 bookbinder
 book-keeping
 bookseller
 book-worm
 boorish
 bopeep
 bordage
 borrower
 boscase
 Bosphorus

B U S

bosses
 Boston
 botanical
 botcher
 botchingly
 bought
 boulding-mill
 bounce
 boundary
 bounteousness
 bowelled
 bowling-green
 Bowtel
 boyish
 braggadocio
 brainless
 brand-iron
 brandish
 brandling
 brandy
 Brasil
 bravado
 brawler
 brawn
 brawniness
 breast-plate
 breeches
 breeding
 Brentford
 breviary
 brew-house
 Brickhill
 bride-groom
 Bridewell
 brigade
 brigandine
 brigantine
 Brokenhurst
 browantler
 brow-beaten
 bucklowness

Calvinist

C A P

C A R

C A V

C
Calvinist
calumniate
cambric
Cambridge
cameleon
Camelford
camlet
camomile
campaign
Campden
camphire
champion
Canary-bird
cancer
candidate
candid
Candlemas
candlestick
candour
Canibal
canine
canker
Cannaston
cannon
canonical
canonist
canonization
canonship
canopy
Canterbury
cantharides
Canticles
cantionize
canvass
capacious
capapee
caper
capillary
capital
Capitol

capitulate
capon
caprice
captain
captious
captive
capture
capuchin
carabineer
caravan
carbineers
carbonade
carbuncle
carcass
cardamum
Cardigon
cardinal
career
careful
careless
Carew
cargo
carlings
Carlisle
Carlton
Carmarthen
Carmalite
carmine
earnal
Carnarvan
carnation
carnaval
carnivorous
Carolina
carouse
carpet
carpenter
carreer
carriage
carrier
carriion

cartel
Cartesian
Carthusian
cartilage
Cartmel
cartridge
cascade
cashier
Cassiope
cassock
castaway
Castle-comb
Castle-rising
castling
castrate
casual
casually
casuist
catacomb
catalogue
catarrh
cataplasm
cataract
catastrophe
catch-pole
catechetical
categorical
caterer
caterpillar
cathartic
cathedral
catholic
Cats-ash
Catterick
catterwawling
cavalcade
cavalier
cavalry
Cauler
caveat
caveer

C H A

cavern
cavernous
cauldron
caustic
caution
cautiously
Caxton
Caxwold
celebrate
celerity
cellarage
cement
censor
centaur
centinel
century
cephalic
Cerberus
cere-cloth
ceremonial
certainty
certificate
cessation
chaffing-dish
chaise
chalcedony
Chaldee
chaldron
challenge
chamber
chambering
chamberlain
chambermaid
champaign
champion
chancellor
chance-medley
chancery
chandler
change
channel

C H I

chapelry
chaplain
chapman
chaplet
Chappelborn
character
charcoal
chargeable
Charing
chariot
charitable
charmer
charnel-house
chart
chartel
charter
chaste
chasten
Chatham
chattels
chatter-pye
cheap
checker'd
cheek-bone
cheer
cheese
Chelford
Chelingford
Chelmsford
Cheltenham
Chepstow
cherish
Cherloury
cherry-stone
cherubim
Chesham
Cheshunt
Chetelhampton
chevalier
Chewton Mendip
Chichester

C I R

chicken
Chidingford
chidingly
chief
chieftain
chilblain
child-bearing
Childermas
Chilham
Chillingham
chimerical
chimney-piece
China
Chip case
Chippenham
Chipping-Norton
Chipping-Ongar
Chirk-Castle
chirographer
chirurgeon
chitterling
chocolate
choice
choler
Cholmondely
chorographer
Christ
Christ-cross-row
Christendom
Christmas
Christ's-church
chronologer
chubbiness
Chudleigh
Church-Stretton
church-warden
churlish
chymical
chymist
Ciceronian
circumference

Dagon

DEC

DER

DIS

D

Dagon	decipher	derogate
dainties	decisive	description
Dalmatia	declaimer	designation
Dalmatick	declaratively	desolation
Dalton and Castle	decoction	desperado
damageable	decorate	despicable
damnable	decorum	despise
dampishness	decrepid	despiteful
Danby	Deddington	despond
dandelion	dedicate	despotic
Dane-gelt	dedication	detect
dangerous	deducible	determinate
Darby	defamation	detestable
Darisbury	definition	dethrone
Darlington	deformation	detractor
Dartford	degenerateness	diabetes
Dartmouth	delectation	diabolical
Daventry	delegate	diagnostic
St. Davids	deliberation	dialling
daughter	delicacy	dialogue
dauntlessness	deliciousness	diamond
Dauphin	delightful	diametrical
dazzlingness	delineate	dictator
deaconship	delineation	dictionary
Deal	delinquent	Didmerton
deambulation	delirious	Dieping-Market
deanship	deliverer	difficult
death-watch	demi-god	diffuse
debauchee	democracy	Digby
debenture	Denton and Hall	digestion
debonairness	denunciation	dilemma
Deborough	Denzil	diligence
Decameron	Dependale	dilucidate
decampment	dependance	dimension
deceitfulness	deplorable	diminution
deceiver	deposition	diocesan
December	depravation	diploma
decemvirate	deprivative	direction
deception	deputation	disadvantage
decimation	Dereham	disagreeable
	derivation	disappoint

disband

D I S

disband
disbursement
discipline
discomfiture
discommode
discompose
disconsolate
discontent
discontinue
discountenance
discredit
discreet
discriminate
disdain
disencumber
disfranchise
disgraceful
dishonesty
disingenuous
dislocate
disloyal
dismember
disobedient
disoblige
disparage
dispatch
dispenser
displeasure
dispossess
disprove
dispute
disquiet
disrepute
disrespectful
dissatisfactory
dissemble
dissention
dissimulation
dissolvable
dissolute
disswade

D O R

distasteful
distemper
distiller
distinction
Distington
distinguish
distracton
distress
distributor
distrustful
disturbance
dittander
diversifie
divertisement
dividend
divination
divinity
divorcement
divulge
D-la-sol-re
docibility
Docking
Dockley
doctorship
document
Dodbrook
doggedness
Dolbenmen
dolefully
Dolgad-Van
Dolgelle
dolphin
domestick
domineer
dominical
donation
Doncaster
Dorchester
dormitory
Dorp
Dorset

D U S

doteril
doubtful
Dover and Castle
doughtiness
Doufabel
Downham
downward
doxology
drapery
drawback
draw-bridge
dreadful
dreamer
dredging-box
dripping-pan
driveller
Droitwich
drollery
dromedary
dropical
drudgery
druggift
Druids
Drumburgh
drum-major
Drufton-Castle
dubiousness
Dublin
ducatoon
dudgeon
dukedom
dulcimer
Dulverton
dumbness
Dunchurch
Dunston
dunghill
Dunmow
Dunnington
Dunstable
duskinness

E F F

E L T

E N C

E

Earl
early
earnest
ear-ring
earth
earthquake
ear-wig
easiness
East-Ham
Eaterton-Over
Eaton
eaves-dropper
Ebionites
ebony
ebullition
eccentric
Eccles
Ecclesiastes
ecclesiastic
echo
eclipse
ecliptic
eclogue
ecstasy
edacity
eddy
Eden
edict
edification
edifice
edition
education
efface
effective
effectual
effeminate
efficacious
efficient
effigies
efflation

effluvium
efflux
effort
effrontry
effulgence
effusion
egestion
Eglestonebridge
egregious
Egremount
Egypt
ejaculation
ejection
Ela
elaborate
E-la-mi
Eland
elapse
elasticity
elder
election
elector
elegance
elegy
elemental
elephant
elevate
eleven
Elham
Elhil
eligible
elixir
Ellefdon
Ellesmere
ellipsis
elogy
elope
eloquence
eloquent
Elstre
Eltham

elucidate
elucubration
elusion
Elyfian
Elzivir
emaciate
emasculate
embale
embalm
embargo
embark
embarras
embassy
embattle
embellish
embezzle
emblem
emboss
embowed
embowel
embrace
embrocation
embroider
embroil
Embryo
emerods
eminent
Emley
emolument
emotion
empannel
emperor
emphasis
empire
employ
empreis
emulate
emulgent
emulsion
enamel
encamp

enchant

E N T

enchant
 enchiridion
 enclosure
 encourage
 encroach
 encumber
 endear
 endive
 endow
 endure
 enemy
 energy
 enervate
 enfeeble
 Enfield
 enfranchise
 engage
 engine
 engrave
 England
 engross
 enhance
 enigma
 enjoy
 enlarge
 enlighten
 enmity
 ennoble
 enormity
 enrage
 enrich
 enrol
 ensample
 enshrine
 ensign
 entablature
 entail
 entangle
 entendre
 intercourse
 enterprize

E Q U

entertain
 enthrall
 enthrone
 enthusiasm
 entice
 entity
 entrails
 entrap
 entreat
 enucleate
 envious
 environ
 enumerate
 enunciation
 envoy
 epact
 ephemeris
 Ephialtes
 ephod
 epicure
 epicurean
 epidemical
 epigram
 epileptic
 epilogue
 episcopacy
 episode
 epistle
 epithet
 epitome
 epitomize
 Epping
 Epsom
 Epworth
 equal
 equator
 equilateral
 equinox
 equip
 equity
 equivocal

E X M

eradication
 Ercol & Castle
 erector
 eremitical
 erratic
 error
 escheat
 eschew
 escurial
 escutcheon
 espousals
 esquire
 Essenes
 establish
 estimate
 Estry-Divodoch
 eternal
 Ethiopian
 etymological
 evacuate
 evangelical
 eucharist
 event
 eventilate
 evermore
 Evershalt
 Evesham
 evitable
 Eunomians
 Euphrates
 Europe
 evulsion
 Ewell
 exactor
 Exchequer
 exclaim
 exclude
 executioner
 exemplary
 Exeter
 Exmonth
 Fabulous

F A T

F I C

F L A

F

Fabulous
facetious
facilitate
facility
faction
factor
faint-heartedness
Fairford
Fairleigh
fairy
faithful
falcon
fallacious
fallible
Falmouth
falsifier
familiar
familist
famine
famous
famously
fanatical
fantastic
fantastical
fantom
fardingale
Farham
farinaceous
farmable
Farnborough
Farnham
farrier
Farringdon
farthing
fascinate
fashionable
fastidious
fastness
fastning
fatality

fatherless
fatigue
fauchion
faulter
favorable
fawningly
fearfully
February
Feckingham
feculent
fecundity
federal
feebleness
feignedly
felicitate
fell-monger
fellowship
felonious
Felton
female
feminine
feoffment
fermentation
Fermingham
ferocity
Ferrybridge
Ferryhill
fertile
fervently
festival
fetlock
feudal
feverish
Feversham
fewel
F-fa-ut
fibber
fiber
fibrous
fickleness
fictitious

fictitiousness
fiddle
fidelity
fierceness
fieriness
fifteenth
figary
figment
figural
figurative
filament
filanders
Filey
filiation
filligrane
fillip
filter
filthiness
filtrate
filtration
finable
finance
find
fineness
finger's-breadth
finical
finisher
finiteness
firmament
firmly
firstling
fiscal
fisher-man
Fishgard
fistula
fixedness
fiz-gig
flabbiness
flaccidness
flagelet
flagging

flagitious

F L O

F O R

F U T.

flagitious
 flagrancy
 flagrant
 flagrantness
 flambeau
 flamiferous
 flanconade
 Flanders
 flanker
 flashiness
 flatness
 flatterer
 flatulent
 flauntingness
 flaxen
 fleetness
 flegmatic
 Flemish
 fleshiness
 fleshliness
 flexanimous
 flexibility
 flexibleness
 flimsiness
 flimsy
 flinchers
 flippant
 flippantness
 flitter-mouse
 flix-weed
 floatage
 Flora
 Florence
 florentine
 florid
 floridness
 flounce
 flounder
 flourish
 flouter
 flower-de-luce

fluctuate
 fluctuation
 fluellin
 fluently
 fluidity
 flummery
 fluster'd
 fluxibility
 focillation
 fodder
 fogginess
 foible
 Fokingham
 foldage
 foliage
 follower
 fomentation
 fondling
 fontanel
 fool-hardiness
 fool-hardy
 foolishness
 foot-man
 foppery
 foppishness
 forbearance
 forbidden
 forceps
 forcible
 fordable
 Fordingbridge
 fore-appoint
 fore-arm'd
 fore-cast
 fore-close
 fore-deem
 fore-door
 fore-fathers
 fore-finger
 fore-front
 foreigner

fore-judge
 fore-know
 fore-knowledge
 fore-noon
 fore-ordain
 fore-runner
 fore-speak
 fore-teeth
 fore-thought
 forgetful
 formality
 fornication
 forsake
 forth-coming
 fortification
 fortitude
 fortunate
 forward
 Foston
 Foulkton
 foulness
 foundation
 foundling
 Four-Crosses
 fourteenthly
 Fowey or Foy
 fowling-piece
 Fowr-hope
 fractiousness
 fragrant
 frailty
 France
 fraternity
 freehold
 friendship
 frolicksomeness
 fructification
 frugality
 frying-pan
 furiousness
 futurity

Gad-

G A R

G E O

G L O

G

Gaddingly
gaggle
gainfully
Gainsborough
gain-stand
galbanum
Galenical
galeons
gallantly
gallery
galley
galley-foist
galley-pot
Gallican
gallicism
gallion
galliot
gallop
galloway
galoon
gambol
gamesom
gamester
gammot
gamut
gang
Ganges
Ganymede
garbler
garbles
gardener
gargarism
gargarize
garland
garment
garnisher
garniture
garreteer
garrison
garrulous

Garstang
Garthley
Gascoigne
gasconade
gastrinefs
Gates-Head
Gatton
gaudinefs
gaudy
gavel-kind
gavelock
Gayton
gaze-hound
gazette
gazetteer
geese
geldable
gelding
geminat
geminat
gemmary
gemmow
genealogical
generalissimo
generality
generation
generosity
generousnefs
Genesis
Geneva
genial
geniculate
gennet
genteel
gentian
gentilism
gentleman
gentlewoman
gentry
genuinnefs
geography

I i

geomancy
geometrician
Georgics
geoscopy
St. Germain
germination
gerundive
gestation
gesticulation
Getabridge
gewgaws
ghostlinefs
ghostly
giant
gibble-gabble
gibbous
giddinefs
Giggleswick
gigglet
gilder
gillflower
ginger-bread
gingler
girl
girt
Gisbon
Gisborough
gizzard
gladiator
gladness
Glamfor
glanders
Glaffenbury
glazier
gleam
glebe
Glew-great
glitteringnefs
globular
Glocester
gloominefs

glo.

G R A

glorification
gloriousness
glossographer
glow-worm
glutinous
Gnatho
gnomonics
Gnostics
goaler
goatish
goatishness
gobblet
Godalmin
God-father
God-mother
Gofford
Gofforth
goggle-ey'd
goldilocks
Golgotha
Gomer
gondolier
gonorrhoea
goose-berry
gorgeous
gormandize
gormandizer
gospeller
gossipings
Gothic
Goths
St. Goven
governableness
governess
government
governor
gracefulness
graciously
gradual
Grafton
Graies-Thurroe

G R E

grammarian
Grampound
grampus
granadier
granado
granary
grandame
grandee
grandeur
grand-father
grand-mother
grand-fire
grannum
grant
grantee
Grantham
grantor
granulation
graphically
grafs
grafs-hopper
grafs-plat
grassy
gratefulness
gratification
gratings
gratitude
gratulatory
graveness
Gravesend
grayhound
grazier
greasiness
greatness
Grecian
Grecism
Greece
green
green-house
greenness
Greenwich

G Y M

Gregorian
grew
grievousness
grimness
Grinsted
Grismond
grissel
grittiness
grizliness
groan
grocery
grogram
groom-porter
groop
groove
gross
grotesk
grotto
groveling
ground-ivy
group
grout-head
growl
grubbage
gruel
gruffness
grumble
Grynton
guarantee
guardien
gudgeon
Guild-hall
Guilford
guiltless
guinea
gun
gun-powder
gush
gutter
Guy
gymnastics

Habi-

H A R	H E A	H E S
H	hardly	Hebraism
Habitation	Hardwicke	hecatomb
hab-nab	hair-brain'd	hectic
Hackney	Haringworth	heedful
haddock	harmotable	heifer
Hadley	Harleigh	heir-loom
Hadonbridge	harlequin	Helford
Hadsho	harlotry	heliacal
haggard	harmful	hellebore
Haggerston	harmlessly	Hellenist
Hague	harmonious	Hellespont
hainous	harness	hell-hound
halbard	harponéers	hellishness
halcyon	harpichord	helm
Hales-Owen	harshness	helpful
Halesworth	Hartlepole	helplessness
half-moon	harts-horn	Helston
Halifax	harvest	helter-skelter
halliards	Harwich	hemicycle
halloo	hallock	hemlock
hallow	hastiness	Hempsted
Haltwessel	Hastington	hence-forth
hamlet	hateful	hen-hearted
hammerer	Hatfield	herbalist
hamper	Haverford	Herculean
Hampton	haughtiness	hereditament
ham-string	havock	hereditary
handkerchief	haut-boy	Hereford
handmaid	Hawkes-head	heretically
handsomness	hawser	heritage
handy	hazardous	Herling
hanger-on	headborough	hermaphrodite
Hanly	Headon	hermetical
Hammere	healthful	hermodactyl
hans-en-kelder	hearkener	hernshaw
happiness	heart-burning	Herodians
harangue	heartiness	heroical
harass	heath-cock	heroine
harbinger	heathenism	herring
Harborough	heavenly	Hertford
Harbottle-Castle	heaviness	hesitate

H O M

hesitation
 heterodox
 heterogeneous
 hexagon
 hexameter
 Hexham
 hickup
 hide-bound
 hideousness
 hierarchy
 hieroglyphic
 Highgate
 Highworth
 highness
 Hilary
 Hilborough
 Hindon
 Hingham
 Hinxly
 hippocras
 hissing
 historian
 historiographer
 hithermost
 Hittites
 Hivites
 hoarseness
 hobgoblin
 hodge-podge
 hoggishness
 hog-grubber
 hogs-head
 Holbeach
 holioak
 holiness
 Holland
 hollowness
 Holy-well
 homage
 home
 homeliness

H U G

Homer
 home-*spun*
 homicide
 homily
 homogeneous
 homologous
 honesty
 honey-comb
 honey-moon
 honorary
 honourable
 hook
 hookedness
 hopeful
 hopper-ars'd
 hops
 Horeb
 hore-hound
 horizon
 horizontally
 Hornet
 horological
 horoscope
 horridness
 horse-leech
 horsemanship
 horse-raddish
 Hosanna
 hospitable
 host
 hostile
 hostileness
 hot-cockles
 hotness
 hotch-patch
 household
 hubble-bubble
 huckster
 hug
 hugely
 hugger-mugger

H Y S

Hugonot
 humanist
 humanize
 humanly
 humbleness
 humid
 humidity
 humiliation
 humorist
 Hunanby
 hunch-back'd
 Hungary
 hungrily
 hunks
 hurlers
 hurry
 hurt
 hurtful
 husband
 Hussars
 Hustings
 hut
 hutch
 huzza
 hydra
 hydraulicks
 hydrographer
 hydromel
 hydrometer
 hydropical
 hymn
 hyperbole
 hyperbolical
 hypochondriac
 hypocrisy
 hypocrite
 hypostatic
 hypothetical
 hysteric
 hysterical
 hystericalness
 Jacobite

I G N

I M M

I M P

J
Jacobite
jagged
jail-bird
Jamaica
Iambick
jangle
Janizary
jannock
Janfenism
January
Japan
japanner
jar
jargon
javelin
jaundice
ichnography
iconography
ideal
identical
idiom
idiomatically
idleness
idolater
jealous
jeerer
Jeffery
Jehovah
jeune
jeunet
jeopardy
jerk in
jessamin
jester
Jesuit
Jesús
jeweller
ignoble
ignominious
ignoramus

ignorance
ignoscible
illegal
illegitimate
illeviable
illicit
illiterate
ill-natured
illogical
illuminate
illusion
illustrate
Ilminster
imagery
imagination
imbalm
imbargo
imbarkation
imbattle
imbellishment
imbezzle
imbibe
imbitter
imbolden
imbofom
imbrication
imbroider
imbroil
imbrue
imitable
imitative
imitator
immaculate
immanent
immaterial
immature
immediate
immemorial
immenfe
immerge
immerfe

immethodical
imminent
immoderate
immodest
immoral
immoveable
immunity
immutably
impale
impanel
imparlance
impartial
impassable
impatience
impeach
impede
impenetrable
impenitence
imperative
imperfect
imperial
imperious
impertinence
impetuous
impious
implacable
implead
implicit
implore
employment
impolite
imporous
importation
importune
imposition
impossible
impostor
impotence
impoverish
impracticable
imprecate
impregnate

I N C

impregnate
 impress
 impression
 imprimis
 imprint
 imprison
 improbable
 improper
 impropiator
 improvable
 improvement
 imprudence
 imprudent
 impudence
 impugn
 impunity
 imputation
 inaction
 inactivity
 inadvertency
 inalienable
 inamorato
 inanimate
 inarticulate
 inaugurate
 inauspicious
 incamp
 incantor
 incapacitate
 incarceration
 incendiary
 incense
 incentive
 incessant
 incestuous
 inchanter
 incedent
 incircle
 incitement
 inclemency
 inclinable

I N D

incloister
 inclosure
 include
 inclusively
 incognito
 incoherent
 incommode
 incompact
 incomparable
 incompass
 incompassionate
 incompetency
 incomplete
 incompoted
 incongruous
 inconnexion
 inconsiderable
 inconsistent
 inconsolable
 inconstant
 incontinent
 inconvenient
 incorporate
 incorrect
 incorrigible
 incorrupt
 incouter
 encouragement
 increated
 incredibility
 incredulous
 incroach
 incubus
 inculcate
 incumbent
 incumbrance
 incur
 incurable
 incursion
 indearment
 indebted

I N O

indecenty
 indecorum
 indefatigable
 indelible
 indemnity
 indenture
 independent
 Index
 India
 Indian
 indicant
 indictment
 indifferent
 indigence
 indigitate
 indignation
 indignity
 indirectly
 indiscreet
 indiscretion
 indiscriminate
 indispensable
 indisposed
 indisputable
 indistinct
 inditable
 individual
 indivisibility
 indocible
 indolence
 indorse
 indubitable
 induce
 induction
 indulgent
 indulto
 indurable
 indurate
 innumerableness
 inobservance
 inoculation

Kayage

K I C

K I T

K N O

K

Kayage
Kedermister
kedger
keech
keelhalling
keen
keenness
keeper
keeve
keg
kell
Kellington
Kelmarsh
kelp
kelter
kemb
kembo
ken
Kendall
Kenford
kenks
kennel
kennets
kerb
kerchief
Kermes
kern
kernel
kersey
kerstrel
Kefwick
ketch
Kettering
kettle
Kettlewell
kex key
Keyworth
kibe
kibe-heels
kick

kickshaw
kidder
kidnap
kidnapper
kidney
kidney-bean
Kigworth
kilbuck
kilderkin
Killgarren
Kilham
kill
killer
kiln
kimnel
kin
kind
kindle
kindly
kindness
kindred
Kineton
kingdom
king-like
kingly
Kingsbridge
Kingscleere
Kingston
Kingsland
kinsman
kinswoman
kintal
kipe
kirk-Burton
Kirk-Oswald
Kirkfop-Foot
kirtle
kiss
kitchen
kitling
kitten

kittle
click
clicker
clicketting
knack
knacker
knag
knaggy
knap
knappish
knappishness
knapple
knappy
knap-sack
Knaresborough
knave
knaveish
knaveishly
knead
kneader
knee-holm
kneel
knee-string
knell
knevels
knew
knick-knacks
knife
knight
knight-hood
Knighton
knit
knitter
knob
knobby
knock
knocker
knocking
knoll
knop
knot

knottily

L A P

L E G

L I K

knottily
knottiness
knotty
know
knowingly
knowledge
knowl
knubble
knuckle
knur
knurling
Krickieth
Kyneton

L

Labyrinth
lachrymation
Laconic
lactation
lady's-bed-straw
lambent
Lamborne
lamkin
lameness
lamentable
Lammas
lampadary
Lanbister
Lancaster
Landaff
land-call
Landrinio
land-loper
landskip
Langport
language
Languard-Fort
languidness
languor
lankness
lantern
lapidation

lapwing
larboard
larceny
larderer
large
Larlingford
larmier
lasciviously
lashers
lassitude
Lateran
latitude
latten
laudable
laudableness
laudanum
lavender
laughing-stock
Lavington-East
launders
lawless
lax
lay brother
Laystoff
Lazaretto
Lazarole
lazines
lead
leaf
leaguer
Learmouth
learning
least
lecherous
lecturer
Leeds
Leeke
leese
leetch
leeward-way
legacy

legible
legislative
legitimate
Leicester
Lemington
lemonade
lenity
lent
leopard
leprosy
less
Lessian
Letice
letter
Levant
levee
Leverpole
Levitical
lewdness
Lexicographer
Lexicon
liableness
libel
libellous
liberality
liberdine
libertine
librarian
library
licence
licentiousness
Lichfield
lickorishness
lictors
lie
Lieutenancy
life-guard
lift
ligature
lightning
likelihood

lilach

LOF

LOU

LUX

lilack
Lilburn
limberness
limbo
limner
limonade
limpness
line
lineament
lingerer
linguist
liniment
link-boy
linsey-woolsey
Linton
Lionel
liquable
liquation
liquefaction
liquor
lisper
listener
litany
literally
litigation
litigious
Little-borough
liturgy
livelihood
liveliness
lixivious
lixivium
lizard
lobby
lobs-pound
localness
lockram
locust
locution
lodgment
loftiness

log
logarithm
logarithmical
logger-head
logician
log-wood
loin
loiterer
Lombard
London
lonesomeness
long boat
longanimity
longevity
longitude
Long-Meg
Longnor
long-shanks
long-winded
looby
loof
looking-glass
loom
loon
loop
loop-lace
loofness
lop
lopper
loquacious
loquacity
lordliness
lorimer
loss
lot
lothsom
lottery
loudly
Loughtoun
lovingness
Louis d'or

loftiness
Louth
Lowborough
Low-Countries
lowness
Lowther
loxodromics
loyalness.
lozenge
lubricity
lubrify
lucidness
Lucifer
lucky
lucrative
lucubration
Luddeston
ludicrous
Ludlow
luff
Luffenham
luggage
luidore
luke-warmly
luminous
lumpishness
lunacy
lunar
lunatick
lung-wort
luscious
lustful
lustiness
lutanist
Luther
Luton
Lutterworth
luxate
luxation
luxurious
ly

Macca-

M A L

M

Maecabees
 Macclesfield
 mace-bearer
 macerate
 Machiavilian
 macination
 machine
 mackarel
 madam
 mad-cap
 maddish
 madness
 madrigal
 magazine
 maggot
 magic
 magician
 magisterially
 magistrate
 magnanimous
 magnet
 magnificat
 magnificence
 magnifie
 mag-py
 Mahometan
 maiden
 majestic
 mail
 main-mast
 main-prize
 maintain
 maintainance
 major
 make-bate
 malady
 Malaga
 malapert
 male-content
 malediction

M A N

malevolence
 malice
 maliciousness
 malign
 malignacy
 malkin
 mallard
 malleableness
 Malling-West
 mallows
 Malmsbury
 malmsey
 Malpas
 maltster
 Malvern Mag.
 Malvern Parva
 Malwood-castle
 mamma
 mammoth
 mammon
 management
 Manchester
 mandamus
 mandarin
 mandate
 mandrake
 manfulness
 mange
 mangle
 mango
 manhood
 Manichees
 manifesto
 mankind
 manliness
 manna
 mannerly
 Manningtree
 Mansfield
 man-slaughter
 manteau

M A R

mantlet
 manual
 manufactory
 manure
 manuscript
 maple
 Maranatha
 marble
 Marchal-Marsh
 marchioness
 Maresfield
 Marforio
 Margam
 Margaret
 Margery
 marigold
 mariner
 marjoram
 maritim
 Markham
 marker
 marketable
 Market-Street
 Marlborough
 Marlow
 marmalade
 marmaleet
 marmotto
 marquets
 marriage
 marrow
 Mars
 marshal
 Marshalsea
 marsh-mallows
 martagon
 martial
 martingal
 Martlemas
 Martinmas
 Martock

. martyr

MAX

martyr
martyrology
marvel
marvelous
masculin
Masham
mason
masquerade
massacre
massiness
masterless
master-piece
mastership
mastich
mastiff
materiality
mathematical
mathematicks
matins
matrice
matricide
maticular
matrimonial
matrimony
matrix
matron
matrosses
matted
matter
mattock
mattress
maturate
mature
maudlin
mauger
maulkin
maunder
Maunday
mawkish
maw-worms
maxillary

MEL

maxim
Maximilian
May-day
mayor
mayoralty
mayorefs
May-pole
mazarine
Mazzaroth
mead
meadow
meagre
meal
mealy-mouth'd
mean
Meander
meaning
meanness
measurable
measure
meawing
meazles
meazly
mechanic
mechanically
mechanism
medal
medallion
median
mediate
mediator
mediatrefs
medicable
medicinable
medicinal
mediocrity
meditation
Mediterranean
medullary
meekness
melancholic

MER

melancholly
melasses
Melicent
melilot
meliorate
mellifluous
mellow
melodious
melody
meltable
Melton Mowbray
member
membranaceous
membrane
memoirs
memorable
memorandum
memorial
memory
menace
mendicant
menial
menes
mensurable
mensuration
metal
mercantile
mercenary
mercery
merchandize
merchant
Mercurial
Mercury
merciful
Megram
Meriden
meridian
meridional
meritorious
Merlin
mermaid

Narcissus

N A R

N I T

N O R

N

Narcissus
 narrative
 nativity
 natural
 naturalize
 naughtiness
 navigable
 nauseous
 Nazarene
 nebulous
 necessariness
 necessitous
 neck-cloth
 necromancer
 Needham
 needfulness
 needle
 nefarious
 negation
 negative
 negligence
 negotiate
 negotiator
 neighbour
 neighing
 St. Neots
 nephew
 nephritic
 Neptune
 Nereids
 nergal
 nerval
 nervous
 nestling
 Nustorians
 Netherlands
 nethermost
 nettings
 nettle
 Nettlebed

never-more
 Nevers
 Nevin
 neurology
 neutral
 new-fangled
 Newgate
 newness
 Newark
 Newborn
 Newburg
 Newbury
 Newbridge
 Newcastle
 Newmarket
 Newport
 Nicene
 niceness
 nichils
 St. Nicholas
 nick-name
 nick-ninny
 Nicolaitans
 niece
 niggard
 nightingale
 night-raven
 nightshade
 night-walker
 Nilometer
 nimble
 nimbleness
 nincompoop
 nineteen
 ninety
 ninthly
 nipperkin
 nipple
 nisi-prius
 nitrous
 nittiness

nobleman
 nobleness
 nocturnal
 noddy
 nodousness
 noggin
 noise
 noisiness
 nomenclator
 nomenclature
 nominal
 nominate
 nomination
 nominative
 non-appearance
 non-compliance
 non-conformist
 non-conformity
 Noneaton
 nonentity
 non-naturals
 non-plus
 non-resistance
 nonsense
 nonsensically
 non-solvent
 nonsuit
 nook
 nooning
 noose
 Normal
 Norman
 Norroy
 Norse
 north
 North-Allerton
 Northampton
 North-Bury
 North-Church
 North-Curry
 northerly

northern

N U C

O B L

O C C

North-Fleet	nuddle	obligate
North-Foreland	nudils	obligatory
North-Leech	nudity	oblige
northward	nugatory	obligee
Northwich	nullife	obligement
Norton	numberless	oblique
Norwich	numerable	obliterate
nose	numeral	oblivion
nose gay	numerator	oblivious
nostril	numerous	oblong
nostrum	num-scul	obloquy
notable	nunciature	obnoxious
notableness	nuncupation	obnubilation
notably	nuncupative	obscene
notary	nuncupativeness	obscenely
notation	nunnery	obscenity
nothing	nuptial	obscurity
notification	nurse	obsequious
notife	nurture	obsequies
notion	nusance	observable
notional	Nutley	observant
notoriety	nutmeg	observation
notorious	nutrition	observator
Nottingham	nutritive	observatory
notwithstanding	nuzzle	observe
Novatians	nymph	obsolete
novel	nymphal	obstacle
novelist	O	obstinacy
novelty	Oakham	obstinate
November	oaker	obstreperous
novennial	oath	obstruct
nought	oat-meal	obstruction
novice	obduracy	obtain
noviciate	obedience	obtrude
nourishing	obeisance	obtruder
nourishment	obelisk	obtrusion
noxious	obey	obviate
noxiousness	objection	obvious
nubble	objector	occasional
nubilous	objurgation	occult
nuciferous	oblation	occultness

K k

occupation

O S T

O V I

P A L

oriental	osteology	Ovingham
original	ostler	oviparous
originalness	ostrich	Oulney
Orion	Ostrogoths	ounce
orison	Ofweltry	Oundle
Ork	Osyth	Ouse
Orkneys	otherwise	out-landish
Orlando	Otley	out-lawry
Orlop	Ottoman	outrageous
Orlton	oval	outrun
Ormskirk	ovation	outwardly
ornament	oubut	out-works
ornamentalsness	oven	ouzel
ornithologist	over-act	Owen
ornithomancy	over-balance	owler
Oroonoko	over-bear	owner
orphan	over-board	Oxford
orphanism	over-charge	Oxwich
Orpheus	over-clouded	oxygon
orpiment	over-done	oyer
Orrery	over-eat	oyez
orrice	over-fill	ozier
orthodox	over-grown	P
orthogonal	over-hastiness	
orthographer	over-loaden	
orthographical	over-match	
orthography	over-plus	
Orton	over-power	
Orton-Maddock	over-poise	
orvietan	over-reach	
oscitant	over-seer	
oscitation	over-shadow	
osier	Overton	
Osiris	over-top	
Osmandston	overture	
Osmond-royal	over-turn	
osprey	over-value	
Ostend	over-weening	
ostensive	over-weigh	
ostentation	over-whelm	
ostentatiousness	Ovid	

P A P

Palatinate
 Palatine
 paleness
 palinody
 palish
 Palladium
 pallats
 palliation
 Pall-Mall
 palmer-worm
 palmestry
 palm-tree
 palpable
 palpitation
 Palsgrave
 palsy
 paltry
 pamper
 pamphlet
 pan
 panado
 pan-cake
 Pancras
 pancreas
 Pandects
 pander
 Pandora
 panegyric
 pangs
 panic
 pannage
 pannel
 pannier
 pant
 pantaloons
 panting
 Pantheon
 panther
 pantofle
 pantry
 papacy

P A R

papism papist
 papistry
 pappa
 Papplewick
 pappiness
 par
 parable
 parabola
 parabolical
 Paracelsus
 paradise
 paradox
 paragon
 paragraph
 parallel
 paralytic
 paramour
 paraphrase
 paraphrastical
 parasceve
 parboil
 parcel
 parchment
 pardon
 pardoner
 parentage
 parenthesis
 partitioner
 parliament
 parliamentary
 parlour
 parmesan
 parochial
 parole
 patricide
 party
 parsimonious
 parsimony
 parsley
 parsnip
 parson

P A T

partake
 partial
 participate
 participation
 participial
 particle
 particular
 particularly
 parting
 partisan
 partnership
 partridge
 pash
 pasquin
 passable
 passableness
 passage
 passenger
 passible
 passion
 passionate
 passive
 passover
 pass-port
 pastime
 pastry
 pastry-cook
 patacoon
 patcher
 patch-box
 patentee
 pathetic
 pathological
 patience
 patientness
 patriarch
 patriarchship
 patrician
 patrimonial
 patrimony
 Patrington
 patriot

P E N

P E R

P E R

patriot	pencil	perennial
patriotism	pendant	perfect
patrol	Pendennis-Castle	perfection
patron	pendulum	perfidious
patronage	penetratable	perfidy
patronize	penetrate	perforate
patty	penetration	perforce
paucity	Penguin	perform
pave	peninsula	perfume
pavement	Penistone	perfunctory
pavilion	penitent	perhaps
pause	pen-knife	pericranium
pawn	pennant	perilous
pawn-broker	penniless	period
payable	Penniston	periodical
payment	Pennyfont	peripatetic
peacock	penny-royal	periphery
pear-main	Penruddock	periphrastically
peasant	Penryn	perish
pebble	Pensance	perishableness
peccadillo	pension	perjure
peccavi	pensionary	perjury
pectoral	pensive	periwig
peculiar	pensiveness	periwinkle
pedagogue	pentagon	permanent
pedantic	pentateuch	permission
pedigree	Pentecost	permit
pedo-baptism	penurious	permutation
peerdom	pepper	pernicious
peevish	peradventure	peroration
peevishness	peragrations	perpendicular
Pegasus	perambulation	perpetrate
Pelagians	perceive	perpetual
pelican	perception	perpetuation
pel-mel	perch	perpetuity
pelt-monger	perculations	perplex
Pembridge	perdition	perquisites
Pembroke	perduration	Persbridge
penalty	peregrination	Pershore
penance	peremptory	Persia
penance	peremptorily	persecute
	K k 3	perseverance

P H I

P O M

P U E

perseverance	philologer	pompous
persevere	philosopher	pond
persist	phlebotomize	ponderous
personable	phlegmaticness	pontificate
personage	Phosphorus	Pontepool
personality	phrase	Pontipolen
personate	Phrygian	pope
perspective	physic	popinjay
perspicuity	physiognomy	porcupine
perspicuous	piazza	pork
perspiration	pickage	portcullis
persuasion	Pickering	porter
persuasive	Picts	Portsmouth
persuasiveness	pierce	positive
pertain	pigmy	possession
pertinacious	pilchard	postage
pertinence	plant	posterior
pertinent	plantation	posthumous
pertingent	pleasure	posture
perturbation	pliant	potentate
Peru	plough	practicable
pervade	plumb	pragmatical
perverse	plunder	praise
pervert	Plymouth	prawn
pervicacious	pneumatical	preacher
Peruvian	poach	precarious
pestilence	pocket	precedence
petardeer	poetry	predestinate
Peterborough	poinant	pre-eminence
Peter Church	political	preference
Petersfield	politician	pregnancy
Petherton-South	polisher	prejudication
Petherton-North	polite	prelate
petrification	polling	premature
pettifogger	Polverbatch	prenomination
pettulance	polygamy	pre-occupy
phantastical	polygraphy	preposterous
Pharisee	pomander	presbyterian
pharmaceutic	pome-citron	public
philanthropy	pomiferous	pudder
Philip's-Norton	pommel	puerility

Quadragesima

QUA

QUE

QUO

Quadragesima	quarrellsome	quibble
quadragesimal	quarrellsomeness	quick
quadrangle	quarry	quicken
quadrangular	quart	quickly
quadrant	quartan	quickness
quadrantal	quarter	quicksand
quadrat	quarter-day	quickset
quadrata	quarteridge	quick-silver
quadratic	quarterer	quick-sighted
quadratrix	quarterly	quick-witted
quadrature	quarter-master	quicky-tree
quadrinomial	quarter-round	quid
quadripartite	quarter-sessions	quiddany
quadripartition	quatern	quiescence
quadrisyllable	quarter-staff	quiescent
quadrivial	quarto	quiet
quadrupedal	quash	quieter
quadrupedes	quaver	quietism
quadruple	quean	quietist
quadruplication	queen	quietly
quaffer	Queenborough	quietness
quagmire	queer	quill
quail	queerness	quilt
quaint	quell	quince
quaintly	queller	quincunx
quaintness	quench	quinsy
quake	quenchable	quint
quaker	quencher	quintain
quakerism	querent	quintal
qualification	querist	quintessence
qualife	querk	quintessential
quality	querulous	quintil
qualm	query	Quintilian
qualmish	quest	quire
qualmishness	quest-man	quirister
quandary	question	quit
quantity	questionable	quit-claim
quarentain	questionableness	quite
quarrel	questionist	quit-rent
quarreller	questionless	quiver
	questor	quoted

R A M

R A V

R E C

R	Ramsbury	raze
Rabbi	Ramsey	reach
Rabbin	ram's-head	re-action
rabble	rancid	readiness
race	rancour	Reading
racket	Randal	re-admission
rackoon	random	re-admit
radiancy	ranger	real
radiant	rankness	realize
radical	rankly	realm
radicate	ransom	re-animate
raddish	ransomer	re-ascend
radius	rantipole	reaper
Radnor	rapacious	rear-admiral
raff	rapid	rear-guard
raffle	rapine	reason
rage	rapparee	re-assemble
rag-bolts	rapfody	re-afflig
raggamuffin	rapture	re-assume
ragged	rarely	re-baptize
Ragland-Castle	rarity	rebate
rag-man	rascal	rebatement
ragoo	rascally	rebel
rail	rash	rebellious
railery	Rasen-Market	rebound
Raimund	rashness	rebuff
rain-bow	razor	rebuild
rain-deer	ratafia	rebuke
raip	rather	recal
raise	ratification	recant
rake	ratifie	recantation
rake-hell	rational	recapitulate
rakish	rats-bane	recede
Raleigh	rattle	receivable
Ralpho	rattle-snake	receiver
ramazan	ravelin	recent
ramble	Raven-glas	recess
ramage	ravenous	Reche
Ramish	raving-mad	recipe
rammer	ravisher	reciprocal
rap	ravishment	reciprocate
		recita

RED	REL	RYE
recital	re-deliverance	reluctant
recitativo	Redford	remain
recite	Redicalus	remarkable
reciter	redouble	remedy
reckoning	redound	remember
reclaim	Redruth	remit
recline	Red-sea	remnant
recognition	reduction	remonstrance
recognize	redundant	remorse
recognisor	re-edifice	removable
recoil	re-entrance	rencounter
recollect	re-establish	rendezvous
recollection	re-examination	renegade
recommence	reference	renovation
recommend	refinement	renounce
recommendation	reflexion	renown
recompense	reformation	rent
recompose	refractory	repair
reconcilable	refresh	reply
reconcile	refuge	reprint
record	refusal	reproach
recorder	regain	reproof
recover	regality	repute
recoverable	regard	resemble
recount	regeneration	resolve
recreate	regiment	resolute
recruit	region	resort
rectangular	register	rest
rectify	regret	rheumatism
rector	regular	rich
rectory	rehearse	riddle
Reculver	reject	ride
recumbence	reign	river
recumbent	re-imbark	rob
recurrent	rejoin	rogue
recussion	rejoyce	Rome
Redborn	relation	royal
Redbridge	release	rude
reddish	relent	run
redeem	relief	rush
redeemer	religion	Rye

Sabellians

S A L

S A T

S C A

S	S A T	S C A
Sabellians	salubrious	satisfaction
Sabines	salver	satisfie
fable	salvo	fattin
fabre	salutary	Saturday
Sabridgworth	Samaria	Saturn
facerdotal	Samaritan	Saturnine
fack-cloth	Samech	fatyr
sacrament	famphire	fatyrically
faced	fampler	fatyrift
sacrifice	fanative	favageness
sacrilege	sanctification	fauce-box
fadden	sanctimony	faucer
saddle	sanction	fauciness
Saddleworth	sanctuary	faufage
Sadducee	Sandbach	save-all
safe-conduct	sandbag	saving
safe-guard	sand-blind	faviour
saffron	Sandbury	faunter
Saffron-Walden	sand-eels	favory
fagacious	Sandgate-Castle	Savoy
fagely	Sandhurst	Savoyard
Sagittary	sandlind	Sawley
fainfoin	Sandown-Castle	Sawthey
falamander	Sandwich	Saxmundham
salary	fandy	Saxon
fale	Sandy Chapel	Saxony
fales-man	fanguin	scab
salique	Sanhedrim	scabbard
Salisbury	fanter	scabbed
saliva	fapleness	scabbiness
salivate	faraband	scaffold
Salkeld	Saracen	scalado
fally-port	farcafm	scalding-hot
falmigundy	farcaftically	scalp
falmon	farfenet	scamper
Saltash	Sar-street	scandal
falter	saftafras	scandalous
Saltfleet	Satan	scantiness
faltetre	fatchel	scar
fwage	fatellites	scarramouch
	fatiate	Scarborough
		scarcity

S C R

S E C

S E N

scarcity	scream	secretary
scare-crow	scribe	sect
scarlet	scriptural	sectarian
scatter	scripturist	section
scavenger	scrivener	secularity
skeleton	scrofulous	secureness
scene	scrub	sedan
scenography	scrupulous	sedate
sceptic	scrutinize	Sedber
scepter	scud-away	Sedbury
scheme	sculk	Sedgefield
schism	scull	Sedgefield
scholar	scullion	sediment
scholastic	sculpture	sedition
scholiast	scum	seducer
school	scupper-hole	seduction
school-divine	scurilous	seek
school-man	scurviness	seem
science	scutcheon	seen
scimeter	scymitar	seethe
sciolist	Scythia	seize
scirrhus	Scythian	seldom
scissors	scythe	select
scoffer	sea-chart	self
scold	sea-faring	selfish
scollop-shell	Seaford	self-evident
sconce	sea-green	selvage
scooper	seal	femicircle
scorbutic	seamster	femicolon
score	Sean	feminal
scornful	sea-port	femi-vowel
scorpion	search	senate
Scotch	sear-cloth	send
Scotland	Searn-Abbey	seniority
scoundrel	seasonable	sen-night
scout	Sebastian	sensation
scraggy	secant	sense
scramble	secession	sensitive
scrap	seclusion	sensory
scraper	secondarily	sent
scratches	secret	sentence

shallow

S H O

S K I

S P I

shallow	Shrawarden	Skinningrave
shaloon	shrewdly	Skirking
shambles	Shrewsbury	skirmisher
shame-fac'd	shrivell'd	skittishness
sharp	shrubbishness	sky-colour
sharper	shiness	slab
sharp-sighted	Sicilian	slanderous
sharp-witted	Sicily	slavishness
shatter	sickness	Sleaford
shaver	side-board	sleeveless
Shaw-crofs	sidereal	slightness
Sheals N. and S.	Sidland	slipperiness
shear-man	Sidmouth	sloe-worm
sheep-cote	sieling	soothfulness
sheepishness	sightless	slugard
Sheerness	signal	smackering
Sheffield	signet	smeetyinuans
shelf	signification	smitter
Shepham	signifie	Smockington
shepherd	Silchester	snap-dragon
shepherdess	silentness	sneakingness
Sherborn	sillabub	Socinianism
sheriff	silliness	solemnization
sherry	Silverton	solicitude
Sherston	silver-smith	Solomon's-seal
shew-bread	simonical	Somerfethire
shield	simper	songster
shifter	simpleton	sophistical
shilling	simulation	fordid
Shiloh	sincereness	South-Moulton
shin-bone	sinewiness	Southwold
shingle	singleness	spacious
Shipwash	singularity	spangle
shipwrack	sinenizing	Spaniard
shitten	Sittingborn	speaker
shittle-cock	Sittingham	specific
shop-keeper	sixteenthly	spectator
shop-lifting	skegger-trout	speech
Shoreham New	Skellingthorp	Sphinx
short-sighted	skepticalness	Spilsby
shoulder-knot	skilfulness	spinage

Tabernacle

T A T

T E R

T H O

T			
Tabernacle	tattoo	Terring	
tablature	taverner	territory	
tabular	Tavestock	terror	
tackling	tauntingly	testaceous	
Tadcaster	tautological	testament	
Taddington	tautology	testifie	
Tafford-Bridge	Taunton	testimonial	
tag-rag	Taunton-bishop's	testiness	
tailor	tawdry	Tetbury	
Talbot	taxation	Tets-worth	
tale-bearer	teachable	Tettershall	
talisman	team	Teutonic	
talkative	technology	Tewksbury	
tallow	tedious	texture	
Tallow-down	telescope	Thames	
tally-man	temperate	thankfulness	
Talmud	tempest	theatre	
Talmudical	templar	theme	
Talyfarn	temple	Theocracy	
tamarind	temporal	theologian	
tamely	temporize	thereafter	
Tammuz	tenable	thereupon	
tamper	tenacious	thermometer	
Tamworth	tenantable	thermoscope	
Tangier	Tenbury	Therston	
Tanhill	Tenby	Thetford	
tankard	tendency	thicken	
tantalize	tender-hearted	thicket	
tantivy	tenderly	Thickham	
tapestry	tenderness	thief	
tapster	tenement	thievishness	
tarantula	Teneriff	thimble	
target	Tenterden	thinker	
tarnish	tent-wort	thirstiness	
tart	Teraphim	thistle	
tartane	termagant	Thong-Castle	
Tartar	termination	Thorn	
Tartary	terraqueous	thornback	
tasteless	terrestrial	Thornbury	
tatterdemallion	terrible	Thorncomb	
	terrific	thorough	

T O C

T R A

T R E

Thorp	together	train-oil
thoughtful	toilsome	traiterous
thousand	toilsomeness	tranquility
thraldom	Toledo	transaction
thrasher	tolerable	transcend
threadbare	toleration	transcribe
threefold	Toll-booth	transcript
Threlkeld	tongue-ty'd	transfer
thresher	tooth-ach	transfiguration
throng	toothsome	transfigure
throtile	topaz	transfuse
throwster	Topcliff	transgress
Thummim	toper	transgressor
Thursday	Tophet	transient
Thurston	topographical	transition
thwart	topography	transitoriness
Tickhall	Topham	translation
ticking	topsy-turvy	transmigration
tickle	torment	transmography
tick-tack	torrent	transmutable
St. Tiddy	Torrington	transparent
tidings	torture	transpiration
tightness	tory	transpire
Tilbury	St. Toffel	transplant
tillage	Totness	transport
tilt-boat	touch-stone	transporter
tilt-yard	toughly	transpose
timbel	tournaments	transposer
timorous	toward	transposition
timorousness	township	transubstantiation
tinker	toy-man	transverse
Tinmouth	tractable	trash
tinsel	tractate	Travegar
tirewoman	tradesman	traveller
Titchfield	trade-wind	treacherous
titillation	tradition	treachery
tit-mouse	traduce	treasonable
Tiverton	trage-comedy	treasurer
tobacco	trage-comical	treasurership
Tocetter	tragical	treatment
Tockington	train-bands	Tregaron

Treligh

V A L

V E N

V E S

Treleigh
tremble
trepanner
trepidation
trepidity
Treshevimick
Trevilan
tribulation
tribunal
trickish
triennial
triflingly
Trigney
trigonometry
Trinitarians
Trinity
Tripoly
troublesome
Tubal
Tuddington
Tudworth
Tuilleries
Tukesbury
tulip
tumour
Tunbridge
turnpike
Tweed
typographical
V and U
Vacuum
vade-mecum
vagabond
vagary
vagrant
vain-glorious
vain-gloriousness
valedictory
valetudinary
valiant
valid

validity
valorous
valuable
vambrace
Vandal
vane
van-guard
vanish
vanity
vanquish
vaporation
vapour
vapouring
variable
variance
variation
variety
varlet
vassal
vast
Vatican
Vavasor
Vaudois
vaulter
vaunt
veal
vegetable
vehemence
vehicle
vellum
velocity
velvet
venal
venerable
veneration
venereal
venery
Venetian
vengeance
venial
Venice

venom
venomous
ventilation
venturesome
venturous
Venus
veracity
verb
verbal
verbatim
verberate
verberation
verbose
verboseness
verbosity
verdant
verdigrise
verderer
verditer
verdure
verger
verification
verjuice
vermicular
vermiculation
vermillion
vermin
vernacular
vernal
verse
versicle
versification
versific
vertex
vertiginous
vertigo
vervain
very
vesicle
vesicatory
vespers

VIC

VIR

VIV

vessel
vesses
vest
Vesta
Vestal
vestible
vestiger
vestment
vestry
vestry-man
vesture
vetches
veteran
vex
vexation
vexations
ugly
ugliness
vial
viands
viaticum
vibrate
vibration
vicar
vicarage
vicarship
vice
vicious
vice-admiral
vice-chancellor
vice-gerent
vice-roy
vice-royalty
vicinity
vicinage
vicissitude
victim
victor
victoriously
victory
victualler

virtuals
Vienna
view
vigil
vigilant
vigorous
vigour
vileness
vilifie
village
villager
villainous
villainously
villany
Vincent
vincible
vindication
vindictive
vine
vineyard
vinegar
vinew
vinet
vinous
vintage
vintner
vintress
vintry
violable
violate
violation
violence
violent
violentness
violin
violoncello
vipër
virago
virgin
virginals
Virginia

virginity
virid
virile
virility
virtual
virtuoso
virtuously
virulency
virulent
virulently
virulentness
visage
visera
viscount
viscountess
viscous
viscousness
visibility
visibleness
visible
Visier
vision
visionist
visit
visitation
visney
visual
vital
vitalness
vitiate
vitious
vitiousness
vitreal
vitreous
vitriſie
vivace
vivacious
vivacity
Vivian
vivid
vivification

ultimate

U N C

ultimate
Ulverston
umbrage
umbrella
umpire
unacceptable
unaccountable
unaccustomed
unacquainted
inactive
unadvised
unaffected
unaided
unalterable
unanimity
unanswerable
unarmed
unarrayed
unassisted
unattentive
unattainable
unavoidable
unawaked
unawares
unbecoming
unbegotten
unbelief
unbeliever
unbend
unbidden
unblamable
unblind
unbloody
unboiled
unbooted
unbound
unbowel
unbridled
unbuilt
unbutton
uncapable

U N D

uncertain
unchangeable
uncharitable
unchaste
unchristened
unchurched
uncircumspect
uncivil
unclasp
unclean
unclothe
uncomfortably
uncomlily
uncommon
unconcerned
unconceivable
uncondemned
unconformable
unconquerable
unconquer'd
unconscionable
unconstant
unconstrained
uncontestable
uncontrolable
uncorrected
uncover
uncourteous
uncrowned
unction
uncultivated
uncustomed
undaunted
undecided
undefiled
underling
undermine
understand
undertake
under-value
under-written

U N G

undeserved
undetermined
un-disciplined
un-distinguishable
un-divided
undoubted
undress
unduly
undutiful
uneasy
uneloquent
unemployed
unequal
unerring
uneven
un-executed
unexpected
unexpert
unexpressible
unfairly
unfaithful
unfashioned
unfasten
unfeigned
unfenced
unfinished
unfitting
unfold
unformed
unforeseen
unfortified
unfortunate
unfound
unfriendly
unfruitful
ungainful
ungarnished
ungentle
ungird
ungodily
ungovernable

U N L

U N P

U N S

ungracious	unlooked for	unpurged
ungrateful	unloose	unquenched
unguent	unlovely	unquestioned
unhabitable	unlucky	unquiet
unhandsomely	unmanly	unravel
unhandy	unmannerly	unready
unhappily	unmarried	unreasonable
unhappy	unmasked	unrebukable
unharbour	unmatch	unreclaimed
unharness'd	unmeasurable	unreformed
unhealthful	unmeetness	unregardful
unhealibily	unmerciful	unrelenting
unheard	unmindful	unremitted
unholy	unmolested	unremoved
unhook	unmovably	unrepaired
unhorse	unmold	unresolved
unhusband'd	unnatural	unrespectful
unicorn	unnecessary	unrevenged
uniform	unneedful	unrewarded
uniformity	unoccupied	unrighteous
unimaginable	unopposed	unruly
unimploy'd	unorderly	unsaddle
uninhabited	unpaid	unsafe
unintelligible	unparallel'd	unsaid
union	unpardonable	unsaluted
unison	unpeaceably	unsanctified
unitarian	unpeople	unsatisfactory
universe	unperceivable	unsavory
unjust	unperfect	unscriptural
unkind	unpleasing	unsealed
unknown	unpolished	unsearchable
unladed	unpolled	unseasonable
unlamented	unpremeditated	unseparable
unlawful	unprejudiced	unserviceable
unlearned	unprepared	unsettled
unleavened	unprevented	unshackle
unlicensed	unprofitable	unshaded
unlikeliness	unprosperous	unshaken
unlimited	unprovided	unshaven
unload	unpruned	unshod
unstock	unpunished	unskilful

unsnared

U N V

V O T

V U L

unsnared	un-uniform	voucher
unsociably	unusual	vouchsafe
unfold	unusually	vow
unsolid	unutterably	vowel
unsound	unwarily	voyage
unspeakable	unwary	upbraid
unspent	unwashen	Uphillhaven
unspotted	unwashed	uphold
unstable	unwater'd	upland
unstained	unwearied	uppermost
unsteady	unweariedness	Uppingham
unstirred	unwedded	upright
unstop	unwelcome	uproar
unstring	unwholsom	upside
unsuccessful	unwieldiness	upstart
unsuitable	unwilling	Upton
unsure	unwind	upward
untaken	unwise	urbanity
untamed	unworn	urge
untangle	unworthy	urgent
untanned	unwound	urinal
unteachable	unwritten	urine
untenable	unyoke	urn
unthankful	vocabulary	Ursulines
unthinking	vocal	usage
unthought	vogue	usance
unthriftilly	voice	use
until	void	useful
untilled	voider	usher
untimely	voidness	Usksmouth
untoward	volacious	usual
untowardly	volatile	usurp
untractable	volition	usurpation
untried	voluble	usurer
untrimm'd	volume	usury
untrue	voluntary	utensils
untruth	voluntier	utile
untrustiness	vomit	utmost
untunable	voracious	Utopian
unvail	votary	utter
unvers'd	votive	vulnerable
		Waggoner

W A R	W E L	W H L
W	Warfop	wemb
Waggoner	Warwick	wencher
Wainfleet	wash-bowl	Wendover
wainscot	wasp	Wentbridge
waiter	waspish	Weremouth
waiward	waspishness	Westchester
Wakefield	wassel	westerliness
wakeful	wastful	western
Wales	watchful	Westminster
Walfleet	Waterford	Westmoreland
Walgrove	Watling-street	Westphalia
wall	wavy	westward
Wallasse	waxen	wet wether
wallet	wayfaring	Wetherby
Walloons	St. Waynard's	whale
wallop	way-wood	wharf
wallow	weaken	Whatton
wallowish	weakness	wheaten
Walmer	wealthiness	wheidler
walnut	weapon-salve	wheelbarrow
Walsingham	weariness	wheeler
Walton	weasel	wheel-wright
wamble	weather-beaten	whereas
wander	weather-cock	wherefore
wanton	weather-glass	whereupon
wantonness	weather-wise	wherry
war	weaver	Whet-stone
Wardbridge	webster	Whitchurch
warden	wedding	whiff
wardenship	Wedley	whiffler
wardmote	wedlock	whiggishness
wardrobe	Wednesday	whiggism
Ware	weed	whimsical
warfare	weekly	whindle
wariness	weeper	whipper
warm	weight	whipster
warmness	weightiness	whirl-bone
Warnford	Welch	whirl-pool
warrant	welcome	whirl-wind
warrener	well-a-day	whisker
Warrington	Wellingborough	whiskingly
		whisper

W I M	W O N	W R I
whisperer	winch	Woodbridge
whistler	Winchester	Woodland
Whitby	wind-bound	woodmonger
white-heart	windlass	woodpecker
white-meats	window	Woodstock
whiteness	Windward	woolen
whithersoever	wine	woolstaple
whiting	winged	Worcester
Whitminster	Winslow	Workington
Whit-stable	winter-green	workmanlike
Whitsunday	winterly	workmanship
Whittingham	Winterton & Ness	worldling
wholly	wire-draw	worm-eaten
wholsom	Wirksworth	worm-feed
wholsomness	wisacre	wormwood
whomsoever	Wisbich	worry
whoredom	wisdom	worship
whorishness	wisfully	worshiper
whose-soever	Witborn	Worsop
wickedly	witchcraft	worthiness
wickedness	witch-elm	worthy
Wickliff	Witham	Wotton
Wickomb	withdraw	wound
Wickware	Withernam	wrangle
Widington	with-holden	wrangler
widower	withsay	wrapper
wieldy	withstand	wrath
wife	witness	wreath
Wigan	Witney	wrench
Wigmore	wizzard	wrest
wilderness	Woburn	wrestle
wildfire	woful	wrestler
wilding	wofulness	wretch
wildness	wolf	wretched
Wilfred	Woller	wretchedly
wilfulness	Wolrich	wretchedness
wiliness	Woltingham	Wrexham
willing	womanish	wriggle
Wiltshire	womanly	wright
wimble	wonderful	wrinkle
wimple	wonderfulness	wring

wrinkle

Y E A

Y U L

Z O U

wrinkle	yelk	Z
Wrinton	yellow	Zabulon
writer	yelp	Zacharias
wrongful	yelt	Zagay
wrought	yeoman	Zany
wry-necked	Yeovil	zeal
Wulput	yerker	zealot
wydraught	yesterday	zealous
Wye	yet	zedoary
wyven	yew	Zeland
wyver	yexing	Zell
Y	yieldingness	zenith
Yatch	yoke	Zephyrus
yap	yoke-fellow	Zereth
yard	yonder	zest
yard-arm	yonker	zeta
yard-land	yore	Zeugma
Yarmouth	York	zodiac
yarn	Yorkshire	zone
yarrow	young	zoography
Yarum	youngling	zoology
yaspin	youngster	zootomy
yaw	youth	zoophyte
yawn	youthfulness	Zouch
Yaxley	yule	
yea	yule-block	
yeau	yule-game	
yearling	yule-time	

A

A TABLE of the most familiar **PROPER** **NAMES of MEN and WOMEN.**

A	Giles	Nathaniel
Abel	Gilbert	Nehemiah
Abraham	Gregory	Nicholas
Alexander	H	O
Ambrose	Henry	Oliver
Andrew	Horatio	P
Anthony	Hugh	Patrick
Arnold	Humphrey	Philip
Arthur	I	Peter
Austin	Jacob	R
Augustus	James	Ralph
B	John	Raphael
Barnaby	Jeffery	Raymond
Bartholomew	Jeremy	Reynold
Benjamin	Jonathan	Richard
Bernard	Joseph	Robert
C	Josias	Roger
Cæsar	Joshua	Roland
Charles	Isaac	S
Christopher	Jude	Solomon
Clement	Julian	Samuel
Constantine	L	Sampson
D	Lambert	Sebastian
Daniel	Lancelot	Sigismund
David	Laurence	Silvester
Dennis	Leonard	Simeon
Dunstan	Leopold	Simon
E	Lewis	T
Edmund	Luke	Theodore
Edward	M	Theodosius
Eleazer	Malachy	Theophilus
Elias	Mark	Thomas
F	Martin	Timothy
Ferdinand	Matthias	Toby
Francis	Matthew	V
Frederick	Maurice	Valentine
G	Michael	Vincent
Gabriel	Moses	Urban
George	N	Z
Gervas	Nathan	Zachary
		NAMES

THE NAMES of WOMEN.

A	E	Margaret
Abigail	Eleanor	Margery
Alice	Elizabeth	Mary
Agnes	Esther	Martha
Amelia	F	Maud
Ann	Flora	P
Arabella	Frances	Penelope
B	G	Phyllis
Barbara	Gertrude	Priscilla
Beatrice	Grace	Prudence
Betty	H	R
Bridget	Hellen	Rachel
C	Henrietta	Rebecca
Caroline	I	Rosamond
Catherine	Jane	Rose
Cecily	Joan	S
Charlot	Isabel	Sarah
Christian	Judith	Sophia
Constance	L	Susanna
D	Laura	T
Damaris	Louisa	Theresa
Deborah	Lucy	U
Diana	Lucretia	Ursula
Dinah	M	
Dorothy	Magdalen	

1728



22

254

1848

12936 7

12096

840 *feet*